DOCUMENT RESUME

ED 043 329 JC 700 232

AUTHOR Baldwin, Evanell K.
TITLE Differential Attitudes and Practices Relative to Minority Groups as Evidenced by College and Community Experiences.
INSTITUTION San Diego Community Coll., Calif.
REPORT NO R-70-10
PUB DATE Jun 70
NOTE 167p.

EDRS PRICE EDRS Price MF-$0.75 HC-$8.45
DESCRIPTORS *Employee Attitudes, *Employment Opportunities, Employment Practices, *Graduate Surveys, *Junior Colleges, Longitudinal Studies, Minority Groups, Questionnaires, *Vocational Followup
IDENTIFIERS *California

ABSTRACT

To investigate the basic goal of the junior college as the preparation of students for future employment, especially for minority experiences, this study was conducted at three San Diego community-junior colleges. Data for the investigation were provided by graduates who answered two questionnaires: the first, after their graduation with an AA, AS, or Certificate of Proficiency in June 1968, and the second , a year later. From these two questionnaires, data concerning attitudinal shifts, job changes, and employment and persistence ratios were collected. The Chi-square test for significant differences failed to reveal any at the .05 level between minority, nonminority groups, or individual ethnic groups on: (1) rate of employment, (2) rate of employment in jobs related to the college programs completed, or (3) number of students who changed jobs during their first year of employment. Apparently, the local community's employment practices showed no evidence of differential treatment. This test also indicated no significant differences between ethnic groups in mean beginning salaries or attitude toward college atmosphere, counselors, courses, instruction, or instructors. Another indication of the colleges' success was the fact that 92 per cent of their graduates in this sample were employed full-time. (JO)

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

ED043329

DIFFERENTIAL ATTITUDES AND PRACTICES RELATIVE TO MINORITY GROUPS AS EVIDENCED BY COLLEGE AND COMMUNITY EXPERIENCES

by

Evanell K. Baldwin

San Diego Community Colleges
835 Twelfth Avenue
San Diego, California 92101

REPORT R 70.10
June 1970

JC 700 232

UNIVERSITY OF CALIF.
LOS ANGELES

OCT 28 1970

CLEARINGHOUSE FOR
JUNIOR COLLEGE
INFORMATION

Research Office
Otto A. Heinkel, Director

ED043329

TABLE OF CONTENTS

Chapter		Page
I.	INTRODUCTION	1
	Statement of the Problem	
	Importance of the Study	
	Limitations of the Study	
	Method of the Study	
	Organization of the Remainder of the Study	
II.	REVIEW OF THE LITERATURE	18
	Studies Concerned With the Education of Minority Groups	
	Studies Related to Follow-up of Community College Students	
	Stewart Study	
	Davidson Study	
	Hakanson Study	
	Baird, Richards, and Shevel Study	
	Renick Study	
	Schultz Study	
	Studies Related to the Employment Situation and Vocational Education Needs	
	Summary	
	Studies Concerned with the Education of Minority Groups	
	Studies Related to Follow-up of Community College Students	
	Studies Related to Employment Needs and Vocational Education	
III.	RESEARCH DESIGN AND PROCEDURES	98
	The Population	
	Study Sample	
	Study Groups	
	Data Gathering Procedure	
	Method of Analysis	
IV.	ANALYSIS AND INTERPRETATION OF THE DATA	116
	Hypotheses	

Chapter Page

IV. (Continued)

Hypothesis 1a
Hypothesis 1b
Hypothesis 1c
Conclusions
Hypothesis 1d
Conclusions
Hypothesis 2
Conclusions
Hypothesis 3
Conclusions

V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS... 131

Summary
Findings and Conclusions
Recommendations and Discussion

BIBLIOGRAPHY..... 143

APPENDIX A--Initial Letter and Questionnaire..... 151

APPENDIX B--Final Letter and Questionnaire..... 154

APPENDIX C--Comments of the Respondents..... 158

LIST OF TABLES

Table		Page
1.	Distribution of Students by Departments.....	29
2.	Male and Female Graduates by College.....	99
3.	Number and Percentage of Graduates from Each College.....	101
4.	Number of Graduates By Division.....	102
5.	Marital Status of Students in Study Sample..	103
6.	Ages of Students in Study Sample.....	104
7.	Number of Students in Ethnic Groups.....	105
8.	Marital Status of Ethnic Groups.....	105
9.	Ethnic Groups by Age.....	107
10.	Ethnic Groups by College Division.....	108
11.	Ethnic Groups by Unit Load.....	109
12.	Employment Status.....	117
13.	Employment Status in Jobs Related to the College Program Completed.....	118
14.	Job Persistence Level for First Year of Employment.....	119
15.	Chi Square Values for Hypotheses 1a, 1b, and 1c.....	121
16.	Beginning Weekly Salaries Individual Ethnic Groups.....	122
17.	Analysis of Variance Beginning Weekly Salaries.....	123
18.	Beginning Weekly Salaries (Minority, Non-minority).....	124

Table		Page
19.	Analysis of Variance Beginning Weekly Salaries (Minority, Nonminority).....	124
20.	Positive Attitudinal Responses Initial Questionnaire.....	126
21.	Chi Square Tests--Positive Attitudes Initial Questionnaire.....	127
22.	Positive Attitudinal Responses Final Questionnaire.....	129
23.	Chi Square Tests--Positive Attitudes Final Questionnaire.....	130

CHAPTER I

INTRODUCTION

Dramatic expansion of the community college began in this decade. Reporting on the growth of the community college, Edmund J. Gleazer, Jr.,[1] Executive Director, American Association of Junior College, says that ten years ago one out of five students in the nation began his work in a community college. Now the number is more than one out of three. Soon it will be one out of two.

Since 1960, community colleges have been established for the first time in twenty major cities. When the fall semester began in September, 1967, seventy community colleges enrolled students for the first time. Within a decade, 1,000 publicly supported community colleges will make education beyond the high school available to youth and adults in every state.[2]

With this growth, the community colleges have been given increased responsibility for the education of today's youth who have left high school and are available for full-time or part-time post-secondary education. An increasingly

---

[1]Edmund J. Gleazer Jr. This is the Community College (Boston: Houghton Mifflin Company, 1968), p. 4.

[2]Ibid.

essential element of community college education has been in vocational education to fulfill the manpower needs for skilled and technical workers in industry, business, and government. Four-year colleges are eliminating more and more of the "skills" courses, and as a result the community colleges are rapidly expanding their programs to meet the needs of business and industry. The Vocational Education Amendments of 1968 (P.L. 90-576) gave impetus to this expansion by making funds available for innovative programs in the vocational areas.

Procedures, techniques, and environment change so rapidly in business and industry that continuous evaluation and revision of the curriculum is mandatory. In discussing the basic function of community colleges in educating for occupations, Jessie P. Bogue[3] points out that methods essential to economical production, processing or distribution in any given field are subject to rapid changes. He believes the community college must be alert to these changes and constantly alter its curricula for functional efficiency. This writer concurs with Bogue's statement that "Mere tradition has no place in the community institution. It must be as sensitive and responsive to changing conditions as conditions are changeable."

---

[3]J. P. Bogue. The Community College (New York: McGraw-Hill Book Company, Inc., 1950).

In a conference at the United States Office of Education, where representatives of several business and industrial firms met, Education Commissioner Harold Howe discussed the revolutionary changes taking place in the United States in both business and education. He believes our common interest can furnish the basis for a new partnership that will be of fundamental benefit to the nation.[4]

Vocational education, in addition to recognizing the need to meet technological changes, is now aware of the urgency of meeting compelling societal needs. As a result, the Vocational Education Amendments of 1968 (P.L. 90-576) alters the traditional program of vocational education. The Act mandates in Part B that 15 percent of the state's funds shall be spent for disadvantaged students. Other parts of the Act refer to high funding priority being given to depressed areas, areas of high youth unemployment and high dropout rate.

Data provided in this study should help evaluate the sociological effectiveness of the vocational curricula of the San Diego Community Colleges through the employment of disadvantaged and ethnic minority groups in the local communities.

---

[4]Benjamin H. Pearse. "Business, Industry, and Education, Inc." American Education, November, 1968, pp. 13-15.

Statement Of The Problem

Do the perceptions, attitudes and other characteristics of minority groups, relative to their community college experience, differ from those of nonminority groups?

Do the employment practices of the community evidence differential treatment, relative to minority groups who completed a community college program?

The specific purposes of this study were to:

1. Determine if the community evidences differential treatment toward minority groups in the San Diego Community College:
   a. Comparing the employment rates of ethnic groups;
   b. Relating the curricular choices of students to their entry-level jobs;
   c. Assessing the frequency with which each ethnic group changes jobs;
   d. Comparing the beginning wage of minority groups with the nonminority groups.
2. Determining if the perceptions, attitudes, and other characteristics of minority groups, relative to their educational experiences as reflected by both the initial and the final questionnaire, differ from those of nonminority groups with respect to:

a. Courses completed

b. Instruction

c. Instructors

d. Counselors

e. College atmosphere

Importance Of The Study

It appears that the seemingly conforming youth emerging from the post World War II period have been succeeded by an assertive, insistent, anxious, angry, and aware generation. Although each generation looks with fear and a sense of impending doom in appraising the younger generation, the nonconforming, activist youth of today appear to present an acute social problem for the survival of many institutional practices that apparently have been the warp and woof of American society.

In discussing whether or not college graduates find what they want, Joseph Kratz and Harold A. Korm have this to say:

> After four years of college, many young people are still groping after a personal identity, wavering in their career plans, unresolved in their feelings about love and sex and the world and their place in it. They haven't learned to use reason well enough in facing their own problems and often make major life decisions, including choice of careers and marriage partners, by default.

The four-year study at the Institute for the Study of Human Problems at Stanford University reached this conclusion, "There is failure in the college years. And the sobering fact is that the colleges are failing the students. Colleges are not providing the kinds of experiences young people want and need, or feel they want and need, in developing their identities."

On the part of students, dissatisfaction often erupts as student activism. The root of the dissatisfaction is a basic shortcoming of the college itself; the demands that institutions make of their students are not sufficiently adapted to the great diversity of the students and the differences in their prospective life and career plans.

To resolve this problem will require careful analysis of the tensions between students and their college and a clear look at what colleges are doing now, right and wrong. Tensions between students and colleges are in part due to the fact that many young people come to the campus with high expectations of their personalities.

> They seek better knowledge of themselves and other people, greater emotional self-sufficiency, and enhanced intellectual and esthetic powers. But they are given an academic curriculum that rarely begins to develop these capacities. Classrooms usually provide segmented, condensed, or diluted versions of an academic specialty in the belief that these will nurture the student's intellectual powers.[5]

Ralph Bugg[6] believes that much improvement is being made, but underlying changes in attitudes come slowly. In

---

[5]Joseph Kratz, and Harold A. Korm. "The Graduates--Did They Find What They Needed?" American Education, May, 1968, pp. 5-8.

[6]Ralph Bugg. "When College Isn't the Answer," Today's Health, American Medical Association, August, 1968, pp. 42-45, 65-66.

order to accomplish the desired changes in attitude he says we must acknowledge to ourselves the worth of all types of useful workers and communicate this appreciation to our youngsters through our words and actions. Also, we need to fuse the academic and vocational curriculums, and this involves another change of attitude. Bugg points out that most members of the educational community still tend, by and large, to regard vocational training as an awkward--even if necessary--adjunct to the system. The student who wants to become a craftsman, technician, or office worker should receive instruction in quality to the instruction that will be given the candidate for a profession.

Because of the lateness of the availability of vocational education to students, it is imperative that educational programs be developed which will prepare our students to adjust to a rapidly changing economy. Dr. Howard A. Matthews,[7] Director of the Office of Education's Division of Manpower Development and Training, emphasizes the fact that the people who are in school now will be the backbone of industrial and technological society when the year 2000 dawns. He questions whether they will be

---

[7]Howard A. Matthews. "Tomorrow is Now," American Education, June, 1967, United States Department of Health, Education, and Welfare, Office of Education, pp. 21-22.

prepared for the radically different world of the 21st Century. Matthews believes they will not be prepared unless educators raise their sights because the bulk of the training being given in our schools is geared to yesterday and not to tomorrow.

Today, according to Matthews,[8] the terms "education" and "manpower" are virtually synonymous. When they are not, he believes they should be. Pertinent to this topic he gives two assumptions which must pervade all manpower policy. First, within every job skills are changing, and there will be increasingly less emphasis on years of experience and more emphasis on education. Second, a radically increasing alertness, on ability to read well and compute accurately, analyze and solve problems, and work cooperatively with others. Matthews concludes that these are educational needs of people and of society, not of schools, universities, and institutions. These are our manpower needs. Education should be concerned only with what people do in the teaching-learning transaction.

The cliche of the "generation gap" has particular pertinence for minority youth. Dr. Kenneth B. Clark,[9]

---

[8] Ibid.

[9] Kenneth B. Clark. "The Search For Identity," Ebony, Vol. XXII, No. 10, August, 1967, pp. 39-42.

noted educator and psychologist, suggests that to understand the positives of these young people, one must understand that no group of human beings can move from being the victims of extremes of injustice and inhumanity to the goals of self-acceptance and positive personal and racial identity without a transition period being marked by turmoil.

At a time when a lack of jobs for Negroes, Mexican-Americans, and other minority groups is being cited as one reason for riots in the cities, people are asking how these minority groups are faring in today's period of record-high employment. With the increasing labor skills demanded by modern technology, some manpower experts think that education, rather than discrimination, is the highest barrier to minority gains in job hunting. The absence of these minority groups in white-collar jobs does not in itself prove that discrimination is practiced. There may be, at the present, few individuals in these groups qualified for such jobs.

Great sums of federal money are being used to develop all types of vocational programs. COPE (Community Opportunities Program in Education) is an organization which provides an integrated community effort to encourage and enable youths and adults, especially minority and low-income individuals, to undertake and continue post-secondary

education. However, Phillip H. Vogt,[10] Professor of Sociology at the Municipal University of Omaha, states, "It is apparent that the array of programs now under way in behalf of the poor and disadvantaged minority groups, largely by the government, are producing minimal results." Mr. Vogt says it is apparent that only the ingenuity and resources of business and industry are such as to provide sufficient impact and coverage to make a real dent on the social ills of our great urban centers.

Due to alleged discrimination in minority employment in skilled trades, the minority groups have tended to reject vocational education. The resulting dilemma facing employers, educators, and minority persons is the exact role or benefit of vocational education as compared to an adademic transfer program.

With the employment picture complicated by many contradictions and inconsistencies, it appears imperative that the community colleges study their own communities in an effort to solve local employment problems and revise curriculum and guidance programs to meet the needs of all ethnic groups.

---

[10]Chamber of Commerce of the United States. "More Jobs for Negroes, "Nation's Business, Vol. 55, No. 9, September, 1967, pp. 36-39.

Evans and Brandon[11] feel that one of the best techniques of evaluation for determining the success or failure of past programs is by follow-up studies of past vocational students. This type of study could be used to determine the extent to which the vocational graduates were placed and how well they have succeeded in the occupations for which they were trained.

Levitan[12] stresses the importance of information concerning what happens to the vocational graduate in the world of work. He believes more information should be available in the form of statistics dealing with the placement record of vocational graduates. In a discussion of needed research in vocational education, Vander Werf[13] points out that follow-up studies as a way of evaluating the effectiveness of vocational programs have been meager indeed, if the literature is any measure. He suggests that the following questions are some which should be asked:

---

[11]Rupert Evans and George L. Brandon. "Research in Vocational Education," National Society For the Study of Education, 1965, p. 265.

[12]Sar A. Levitan. Vocational Education and Federal Policy (Kalamazoo: Upjohn Institute for Employment Research, 1963), p. 11.

[13]Lester S. Vander Werf. "Needed Research in Vocational Education," Phi Delta Kappan, XLVI (April, 1965), p. 407.

How many students were placed on jobs for which they were or were not trained? How many are succeeding on jobs in which they were placed and for which they were or were not prepared? How are the students placed on jobs to begin with? What responsibility does the school have under present conditions? What personnel, procedures, and facilities are needed to have a systematic placement, follow-up and reporting service?

The Report of the Panel of Consultants on Vocational Education[14] which was requested by President John F. Kennedy and chaired by Benjamin Willis, recognized the primary importance of successful job placement as basic to an evaluation of vocational education. The report stated that, in the opinion of many, the acid test of the quality of the vocational education program is placement of students in the occupations for which they receive instruction.

The Encyclopedia of Educational Research[15] avers that evaluations of vocational education programs are subject

---

[14]Education for a Changing World of Work. United States Department of Health, Education, and Welfare, Office of Education, Washington, D. C.: Government Printing Office, 1963, p. 89.

[15]Encyclopedia of Educational Research (New York: McMillan Company, 1960), p. 1562.

to direct evaluation by those who employ the product and by fellow workers in the occupation. The methods of evaluation, according to the Encyclopedia, which have been found useful are:

1. A follow-up study of the employment and achievement of those who have received instruction in vocational programs.
2. A survey of opinions and attitudes of trainees or students while enrolled and during employment.
3. A more formal type of evaluation of shop, laboratory, and classroom methods and management in which the faculty engage individually or collectively.

A report by the Task Force on Vocational-Technical Education[16] proposed that the effectiveness of educational programs should be continuously evaluated through a follow-up of all students for an indefinite period and securing feedback on how well the programs are serving their consumers. The report suggested that such information could be used for program redevelopment and improvement as well as for continual escalation of individual skills.

---

[16]Task Force on Vocational-Technical Education of the Education Commission of the States, "Changing the Context in Which Occupational Education Takes Place," American Vocational Journal, Vol. 43, No. 3, American Vocational Association, Washington, D. C., March, 1968, p. 59.

In a study on the use of follow-up in the evaluation of Vocational Education, Sharp and Krasnegor[17] found the most serious gap to be the lack of follow-up information at the post-high school level for those trained in technical institutes or junior colleges. It was determined that the most significant need in vocational follow-up research was a comprehensive evaluation of what happens to an individual who has been trained. The continuing need was emphasized for intensive small-scale studies of particular areas, programs, and factors and for equally strong studies in labor market requirements, employer preferences and behavior.

In the previous statements there is a consensus regarding the effectiveness of follow-up studies in the evaluation of vocational education programs. It is also apparent that a real need exists for research which will determine whether or not our graduates are being placed in jobs for which they were prepared. The importance of following up graduates in the development of a guidance program can hardly be over emphasized. The school's concern for a student should not terminate abruptly when he

---

[17]Laure M. Sharp and Rebecca Krasnegor. "The Use of Follow-Up Studies in the Evaluation of Vocational Education," Document No. ED 010 072, Department of Health, Education, and Welfare, Bureau of Social Science Research, Inc., Washington, D. C., May, 1966, p. 426.

is graduated. It is hoped that this study aids in making the curricular offerings in the San Diego Community Colleges more relevant to student needs and also points out ways of improving guidance and placement services.

The writer wholeheartedly agrees with O'Connor[18] in his belief that two-year colleges must be especially sensitive to all sociological and technical changes and that follow-up is an indispensable aid to their vitality, efficiency, and productivity.

Limitations Of The Study

The three San Diego Community Colleges (San Diego City College, San Diego Mesa College, and San Diego Evening College) are part of the San Diego Unified School District. It is a K-14 district located in San Diego County. The community college enrollment as of December 1, 1967, was 15,349. Total enrollment in tne day colleges was 8,379; enrollment at San Diego Evening College was 6,970.

The population of the study included just those San Diego Community Colleges completing associate in arts or science degrees or certificates of proficiency at the end of the 1968 spring semester.

---

[18]Thomas J. O'Connor. "Follow-up Studies in Junior Colleges; A Tool For Institutional Improvement," American Association of Junior Colleges, Document No. VT 001 271, Washington, D. C.: U. S. Office of Education, 1965, p. 77.

Method Of Study

There were 921 students in the three San Diego Community Colleges who received associate in arts or science degrees, or certificates of proficiency at the end of the 1968 spring semester; of this total, approximately 80 were Negro, Mexican-American, or other minority groups.

Two weeks after the close of the semester, a questionnaire was mailed to all students to determine their employment status, name and address of employer, job title, salary, and an evaluation of the community college program.

Another questionnaire was sent each month for three months to those students who did not respond or were not employed, or continuing their education.

One year later, July, 1969, a final questionnaire was mailed to all respondents. Analysis of the responses were made relative to the ethnic classification of the respondents.

Organization Of The Remainder Of The Study

Chapter II reviews and summarizes available literature pertinent to the study.

The design of the study, procedures, and methods used in obtaining the data, and the methods used in

analyzing the data are described in Chapter III.

Chapter IV presents the analysis of data and specific findings in the order in which each part appeared in the questionnaire.

A summary of the findings, conclusions, and the recommendations drawn from them are given in Chapter V.

CHAPTER II

REVIEW OF THE LITERATURE

The review of the literature revealed many studies conducted to determine the success of community college transfer students to four-year institutions. However, the studies dealing with the success of vocational students in the world of work were meager indeed. Medsker's[1] studies of sixty-three, two-year colleges indicate that approximately one-third of the entering students later transfer to four-year institutions. He also stressed the importance of gathering information about two-year graduates who enter directly into gainful employment, and points out that a very small amount of data on nontransfer graduates has been gathered.[2]

Martorana[3] also believes that two-year colleges have done a much better job of maintaining contact with

---

[1]Leland L. Medsker. The Junior College, Progress and Prospect. (New York: McGraw-Hill Book Company, Inc., 1960), p. 24.

[2]Ibid., p. 156.

[3]S. V. Martorana. "Let's Broaden the Theme," An Address Presented at State University of New York 1965 Summer Conference for Two-Year Colleges, State University Agricultural and Technical College, Cobleskill (New York, June 17, 1965), p. 9.

the students in the transfer programs than in the occupational fields.

To obtain the background and understanding of the total picture involved in this study, the literature was divided into three areas for review:

1. Studies Concerned With the Education of Minority Groups
2. Studies Related to Follow-up of Community College Students
3. Studies Related to Employment Needs and Vocational Education

Venn[4] believes that today's accelerating and changing technology has placed man, his education, and his work in a new relationship in which education becomes the bridge between man and his work. With these technological changes and the rapid growth being experienced in the community colleges, it was felt that only studies made in the last ten years would be pertinent to this study.

Studies Concerned With The Education Of Minority Groups

Ethnic and religious groups vary with respect to the emphasis put upon college attendance. For instance,

---

[4]Grant Venn. Man, Education, and Work (Washington, D.C.: American Council on Education, 1964), p. 73.

the Jewish and Mormon groups stress the importance of education and, as a result, high proportions of these groups do attend.[5]

Wolfle[6] points out that Catholics attend in smaller proportions than do Protestants because a large percentage of the Catholics in the United States come from cultural backgrounds which have not valued education highly.

The most under-represented groups among the college-going population in our country are the Negroes, Orientals, the Spanish-speaking groups, and the French Canadians (in parts of New England). The differences are decreasing, but at the present time the color of an individual's skin and the language spoken in the home both influence the chances for a college education.[7]

To set the stage for reviewing the educational studies dealing with minority groups, the following definition of education, as given by the editors of Syndrome, seems appropriate:

---

[5]Ralph R. Fields. The Community College Movement (New York: McGraw-Hill Book Company, Inc., 1962), p. 271.

[6]Dael Wolfle. America's Resources of Specialized Talent (New York: Harper & Brothers, 1954), p. 168.

[7]Fields, op. cit., 271-272.

> Education is not buildings or busses; it is neither family income levels, community housing types, nor ethnic composition; it is not even class size of 15 pupils, teams of teachers, or so-called "racially balanced" classrooms. Education is symbols, ideas and their associations; it is the use and interpretation of data; it is the knowledge of how to function effectively within society.[8]

Today's black youth rebellion on our junior high, high school, and college campuses is merely a rejection of, and a reaction to, the irrelevancy of educational subject matter to the problems of every day living. The revolt rejects the conscious and subconscious paternalistic attitudes and approaches of more core city white and many black teachers who are assigned to the ghetto school. This rebellion must also be understood as a group effort to "drop into" society (as opposed to the hippie "drop out").[9]

Critical analysis of black student demonstrations reveals a continuous effort to "get in," to influence the decision-making process, and to make the whole educational system meaningful to the black community. The violence

---

[8]"The Education Crisis," Syndrome, March-April, 1969, Vol. III, No. 4, p. 9, Cultural Motivation Publications, Oakland, California.

[9]Ibid., p. 9.

that has errupted must be seen as a very American reaction to the failure of traditional methods through the years to produce tangible individual and group victories in the determined and endless battle for improving educational results.[10]

The largely segregated system of higher education in the South has made comparison between colleges attended mainly by Negro students and colleges attended mainly by majority students easy in that region. Elsewhere, it has not been possible in the past to make comparison between educational opportunities because of the general policy in Federal and State agencies of not collecting data on race. In the fall of 1965, however, the Office of Education reversed this policy as a result of the interest of many agencies and organizations in the progress of minority students in gaining access to higher education. The racial composition of freshmen of all degree-seeking students was obtained from nearly all of the colleges and universities in the Nation.

A study of equality of educational opportunity conducted by the Office of Education[11] showed that over half

---

[10] Ibid., p. 9.

[11] Office of Education, "Equality of Educational Opportunity--Summary," Department of Health, Education, and Welfare, Washington, D. C. Report No. OE-3800, July, 1966.

of all Negro college students attend the largely segregated institutions in the South and Southwest. Nationally, about 4.6 percent of all college students are Negro.

The bulk of the institutions have an average of twenty students per faculty member; whereas, those with predominately Negro enrollment have an average of sixteen students per faculty member. Generally, Negro students are proportionally in colleges with lower proportions of Ph.D. faculty. Negro students are in colleges with substantially lower faculty salaries. The institutions in the South and Southwest generally pay lower salaries than those in other regions, and the colleges serving primarily the Negro students are at the bottom of this low scale.

Other findings of the study are that:

1. In every region Negro students are more likely to enter the State College system than the State University, and further, they are a smaller proportion of the student body of universities than any other category of public institutions of higher education,

2. Negro students are more frequently found in institutions which have a high dropout rate,

3. They attend mainly institutions with low tuition costs,

4. They tend to major in engineering, agriculture, education, social work, social science, and nursing.

In an effort to determine to what extent ethnic groups are associated with differences in adolescents'

projected frames of status reference, Kuvlesky[12] collected data from Negro, Mexican-American, and Anglo youth residing in rural areas of Texas. Occupational and educational status projections were compared to determine levels of aspiration and expectation, anticipatory goal deflection (the divergence between desired and expected status objects), intensity of aspiration, and certainty of expectation. It was found that the three ethnic groups studied were similar except in reference to status expectations and intensity of aspiration. Negro youth maintained higher levels of expectation, and Mexican-American youth maintained stronger intensity of aspiration. Mexican-American youth were least certain of obtaining their expectations; Negro youth held higher educational goals; while Anglo youth manifested the least anticipatory deflection.

Another study of personality factors related to occupational aspirations of Negro college students was conducted by Littig.[13] Certain personality correlates of

---

[12]William P. Kuvlesky. "Status Profections and Ethnicity: A Comparison of Mexican-American, Negro, and Anglo Youth," Texas A and M University, College Station, Texas. (Paper presented at the annual meetings of the Southwestern Sociological Association, New Orleans, Louisiana, April, 1969).

[13]Lawrence W. Littig. "A Pilot Study of Personality Factors Related to Occupational Aspirations of Negro College Students" Howard University, Washington, D. C., Report No. BR-5-1021, 1966.

the occupational aspirations and success expectancies were examined. The subjects were seventy male and thirty female students at Howard University. The personality variables were measured by the test of insight, test anxiety, questionnaire, and a self-rating questionnaire. Occupation-related data were obtained by questionnaires. The results indicated that:

1. Motivations for success and for avoiding failure were not related to realistic or unrealistic aspirations.
2. Middle-class males and females, and working-class females aspired toward occupations which have been traditionally open to Negroes,
3. Working-class males aspired toward traditionally closed occupations, and
4. Male subjects, other than middle-class males, had low expectancy of occupational success.

A study by Kapel[14] assessed the effects of selected environmental factors on the post-high school adjustment of male Negroes. Environmental influences were:

1. Negro density in high school,
2. Urban or rural school population, and
3. Geographic region.

---

[14]David E. Kapel. "Effects of Negro Density on Student Variables and the Post-High School Adjustment of Male Negroes," Project Talent, Five-Year Follow-up Studies Interim Report 6, Washington, D. C.: Office of Education, Bureau of Research, 1968.

Post-high school adjustment variables were:

1. Job stability,
2. Job satisfaction,
3. Number of jobs,
4. Level of post-high school education,
5. Planned post-high school education, and
6. Rise of earning power.

Data were collected from students tested in the twelfth grade, in 1960, in their schools and from a five-year follow-up questionnaire. It was found that:

1. Environmental-parameters could be distinguished from each other,
2. Significant differences were generated by regional influences but not by community or Negro density factors; and
3. There were no significant environmental factors influencing post-high school education.

A recent study conducted by Sherer[15] seems particularly pertinent to this study and for that reason is being reviewed in more detail. The purpose of his study was to examine the social experiences and background influences of Negro and white students in a junior college[16] in relationship

---

[15]Harry Sherer. "Antecedent Conditions and Academic Achievement of Ethnically Different Students in Junior College" (Unpublished Ph.D. dissertation, University of California, Los Angeles, 1967).

[16]The terms junior college and community college are used interchangeably in this study in reference to colleges offering two-year programs leading to the Associate in Arts or Associate in Science degrees.

to their scholastic achievement.

As guidelines for the study, the following research questions were formulated:

1. Can a relationship be established between the background and selected out-of-school experiences of junior college students and their academic achievement?

2. Is there any association between low- and high-socioeconomic status of junior college students and their general academic achievement?

3. Do the Negroes and white students relate to each other significantly in terms of general academic achievement, background factors, and the selected out-of-school experiences?

4. What recommendations can be proposed for further study?

The theoretical background for the study was based on the interactionist point of view. Basically, this viewpoint maintains that the kinds of relationships and experiences people have will determine the competencies they develop. These experiences reflect referential values and attitudes generated by socially significant individuals or groups. School achievement is one category of student experience; so that the level of performance could indicate the orientations of the student toward either the peer or adult culture and represent the dominant influences with which he identifies himself. It was hypothesized that a student who manifested academic interests would perform satisfactorily at college, given adequate abilities, and would likewise engage in

related academic behavior outside the classroom. The reverse would hold true for students with nonacademic interests.

To measure the orientations and extent of relationships, the Background and Experience Questionnaire was used. Both the type of behavior (TV viewing, reading, and activities) and the level of probable cognitive demands (high and low) were included in deriving the scores. Scores were also obtained to measure home background, school interest, plans for the future, and certain types of conversations with significant adults and friends. Students' grade point averages represented the measure of their academic achievement. The questionnaire was distributed to those students who were enrolled in college level courses at the junior college under study, and who had completed at least one full semester.

Table 1 gives the distribution of the student sample by departments.

The data, recorded in accordance with a designated scoring system, were analyzed in connection with each of the major variables in terms of frequencies, distributions, and correlations based on weighted scores. As in the analytic procedures regarding the variables, each scale was considered with regard to the sex, age, and ethnicity of the respondents.

TABLE 1

DISTRIBUTION OF STUDENTS BY DEPARTMENTS

Department	Questionnaires	Negro	White
English	332	159	173
Social Studies	84	34	50
Accounting and Business	54	21	33

The most significant finding in this study is that there was no predictive relevancy of the major variables to academic achievement of the Negro and white students. Socioeconomic status was highly related to the amount of reading, verbal interaction in conversations, and the extent of influence from adults and peers to which these students are responsive. Socioeconomic status persists within all groups as an interactive variable. Reading predicted GPA in only one instance; future plans, in two.

The main conclusions can be itemized as follows:

1. Socioeconomic status sustained high correlations with the various interaction variables.

2. The interaction variables and their influences *did not*, significantly, relate to the academic achievement of the junior college students in this study of varying sex, age, and ethnicity.

3. When socioeconomic level was controlled, racial differences disappeared.

Schwarz and Stern,[17] in a seminar on education for culturally different youth, identified sources of educational failure. Four highly interrelated sources of educational failure were:

---

[17]Terry E. Schwarz and Virginia Stern. "Education of the Deprived and Segregated," Seminar on Education for Culturally Different Youth, Conducted by Bank Street College of Education, New York, New York, 1965.

1. The quality of family and community life,
2. Social class, racial, and ethnic patterms,
3. The technological-ecomonic factor, and
4. The capacity of the schools for creative change.

The seminar went on record as recognizing the existence of educational disaster areas of such magnitude and intensity as to constitute one of the gravest emergencies facing the nation.

In order to get a more complete understanding of educational programs for minority groups, the learning styles must be considered along with the personality and environmental factors affecting the education of college students. Smith[18] reports on the differences in ethnic learning styles. To test the hypothesis that culturally-based ways of learning and communicating might have implications for teaching, an anthropologist and a behaviorist conducted both formal and informal observations and interviews in four job corps centers and two vocational high schools. One school had a student population of 86 percent white and 14 percent Negro, and the other all Negro. The study populations were investigated in terms of formal learning, informal learning, and technical learning to

---

[18]D. B. Smith, Report on Differences in Ethnic Learning Styles, Educational Design Inc., New York, 1966, p. 127.

determine whether various groups of the poor utilize these types of learning differently and in different forms and whether ethnic learning style might be defined by the patterns of utilization.

No significant differences in learning outcome were related to factors such as teaching style and not to ethnic background. However, the proportion of Negroes in a group seemed to intervene in the effectiveness of teaching. When the proportion was low the interaction rates with other members was low. Stereotyped behaviors exhibited rhythm, slowness, docility, and highly slurred, dialect speech. When the proportion was high, the interaction was greatly increased, and stereotyped behaviors were replaced by highly political, power-conscious ones. The teacher was also made to feel the power of the group. It was recommended that special attention be given in staff training to problems created by ethnic proportions.

In a survey of the problems of America's Negro Ghettos, the McGraw-Hill study[19] on "Business and the Urban Crisis" has found that the key to success in providing jobs for the disadvantaged is the right kind of

---

[19]McGraw-Hill Study. "Ghetto Disadvantaged Need Right Kind of Training," American Vocational Journal, Vol. 43, No. 3, March, 1968, p. 12.

training. The secret to effective training is the prospect of a job at its conclusion.

"No part of the curriculum is held in lower regard by the average ghetto dweller than vocational training, which is supposed to turn out graduates ready to step into jobs in industry," the survey states.

It continued:

> Negroes claim that many vocational programs teach trades oriented to the 30's and 40's rather than the 60's. Negro students now want to learn telephone installing, business-machine repair, computer programing, and television maintenance instead of traditional woodworking, metal working, and automobile repair.

The overall finding of the report is that business holds the key to solving the problems of the urban crisis --in providing the necessary jobs, education, and housing.

In the schools themselves, the report states, "only business can make vocational training more realistic. Private industry will have to contribute people and equipment and help plan the curriculum. School administrators don't know what kinds of jobs industry has today."

Approaches and methods which have succeeded in increasing Negro participation in selected apprenticeship programs were studied by Marshall and Briggs,[20] in order to

---

[20]Ray F. Marshall and Vernon M. Briggs, Jr., "Negro Participation in Apprenticeship Programs," Texas University, Austin, Texas, Manpower Administration, Washington, D. C., December, 1966.

recommend policies which would make it possible for Negroes to further "increase their participation in and successful completion of apprenticeship programs." Interviews in ten major cities with 121 officials concerned with Negro participation and 127 Negroes involved directly in apprenticeship programs provided a valuable understanding of the depth and scope of the complex problem. The limited number of Negro apprentices is due to a complex constellation of factors which are deeply embedded in the total American society. Negro youngsters do not have an equal chance of learning about apprenticeship training, of being motivated to try to enter these programs, of meeting the qualifications, of passing the tests, or of successfully completing these programs. Many of the objective standards of apprentice selection are racially motivated and if a supply of qualified applicants is generated and continues to be barred from apprentice programs, public policy might have to devote more attention to the qualifications and testing procedures used to select trainees. Two of the most important policies needed to increase Negro participation are measures that would improve the quality of education available to disadvantaged youth and policies to maintain full employment and economic growth. The municipal, federal, civil rights, industry, union, and state officials all have important roles to play in increasing the number of Negro apprentices.

In a two-part study on the effects of the Neighborhood Youth Corps on Negro youth seeking work, Herman and Sadofsky[21] present some interesting findings. Of the 601 youths whose characteristics were studied in Phase I, 377 were not placed in jobs or training within three months after their initial interview at the job centers. Of these, 201 were interviewed during Phase II to determine the traits which distinguished them from others who had been placed by the centers, and the factors in both the centers and the youths that were related to placement. Some of the major findings were:

1. The sample youths viewed the placement function of the job centers as far more important than the training and remedial services,

2. They did not differ in any major respect from the youths in the Phase I study,

3. The centers were more successful in placing the youths interested in training than those who just wanted jobs,

4. They assigned to jobs or training either the youths who were around when the job order was received or the ones who were aggressive and personable from the counselor's viewpoint, rather than the ones in the waiting list files, and

---

[21]Melvin Herman, and Stanley Sadofsky. Study of the Meaning, Experience, and Effects of the Neighborhood Youth Corps on Negro Youth Who are Seeking Work. Part II. A Follow-Up Study of Work-Seeking Negro Young Men Who are Not Placed in Jobs by Intake Centers. New York: Graduate School of Social Work, New York University, 1967.

5. The lack of differences between those placed by the centers and those not placed. Those placed in private employment and those placed in work training programs, and those who did and who did not find full-time jobs suggested that no subgroup of the population studied was more vocationally impaired than another, and no such impairment was the basis on which decisions were made by the centers.

The purpose of a study by Matthews and Drabick[22] was to analyze the reasons given for entering selected occupations. A sample of 985 white and Negro North Carolina high school seniors comprised of 271 white males, 315 white females, 167 Negro males, and 232 Negro females were studied. Questionnaires, completed in a classroom setting, provided data on student occupational and educational aspirations and background. The majority of reasons given for occupational aspirations were categorized as general interest. More male than female students, but approximately the same percentage of Negro and white boys, gave reward as a reason for entering the expected occupation. Females chose occupations for altruistic reasons almost four times more than nales, and the Negro female was more altruistic than any other group. The Negro male responded to altruistic reasons significantly more than the white males. It was concluded that there are significantly more differences between

---

[22]Robert G. Matthews and Lawrence W. Drabick. Reasons for Selection of Expected Occupations--By Race and Sex. Raleigh, North Carolina: North Carolina University, 1965.

reasons guiding white and negro students and males and females into their expected occupations.

Bayeer and Baruch[23] report that research findings on the black student and on predominantly Negro institutions of higher education in the United States have clarified two sets of facts:

1. Less than 6 percent of all students currently enrolled in United States colleges are black, whereas almost 12 percent of the United States college-age population are black, and

2. More than two-fifths of the black students attend predominantly Negro institutions, which represent 4 percent of the current 2,300 United States undergraduate institutions.

These findings have prompted the planning or implementation of programs at federal, state, and local levels for the purpose of increasing higher educational opportunities for black and other minority group youth.

The purpose of a study by Fitcher[24] was to investigate the status of 1964 graduates from colleges attended predominantly by Negroes. The surveyed population, from fifty predominantly Negro schools, was sampled at the rate of 117 per school. Forty-nine percent responded to the

---

[23]Alan E. Bayeer and Robert F. Baruch. "The Black Student in American Colleges," American Council on Education, Washington, D. C., March, 1969.

[24]Joseph H. Fitcher. "Graduates of Predominantly Negro Colleges, Class of 1964," Washington, D. C.: Public Health Service, Department of Health, Education, and Welfare, 1967.

mailed questionnaire. Electronically processed data showed that 98 percent of all respondents were Negro, 1.7 percent were white, and 0.6 percent were "other races." Nearly 40 percent of the Negro graduates planned to enter health related fields, and an equal proportion to teach. Lack of finances was the principal deterrent to graduate study and training for certain professions. More Negro women attend college than men. The majority were indifferent to desegregation on their own campuses, and showed no desire to push themselves into white southern colleges and universities. They believed that the best opportunities were in large northern cities in education and social work, and that propsects in business were poor. Their educational aspirations were high and ambitious. Sixty percent expected to do graduate work, but not immediately.

In studying graduates of both Negro and white institutions, instead of predominantly Negro colleges as Fitcher did, Huson and Schiltz[25] could compare racial differentials in employment. In this study, Negro-White employment differentials among 1964 college graduates in Louisiana were determined by a questionnaire survey of four

---

[25]Carolyn F. Huson and Michael E. Schiltz, "College, Color, and Employment--Racial Differentials in Postgraduate Employment Among 1964 Graduates of Louisiana Colleges," National Opinion Research Center, Chicago University, July, 1966.

predominantly Negro and three predominantly white institutions. The study gives an overall impression of the sharp employment differences between Negroes and whites fifteen months after graduation. Negroes of both sexes were more likely to be unemployed, they changed jobs oftener, and they were less likely to be employed full time. Negroes began at lower salaries. Male whites were three times as likely to have started teaching with a salary over $4,000 and twice as likely to have gone over $4,000 during the first fifteen months of employment. Although Negro graduates did not get jobs involving the same work at pay levels comparable to those of whites, they had no special difficulty in obtaining jobs. The majority got and held jobs in environments which were substantially or totally Negro. Negro graduates, of either sex, were far less likely than whites to go to graduate school or attend graduate school full time, although they were considerably more likely to indicate a desire for graduate training. Over half of all male Negro respondents entered teaching, and this group exhibited, to a greater degree than any other group, all of the disadvantages identified in the study. To the extent that these data represent southern school systems, there is little reason to expect that the graduate of predominantly Negro colleges will be able to bridge the racial gap in economic opportunity.

Eckstein[26] examined the Negro unemployment problem and found that within all occupational categories Negroes, on the average, have worse jobs at lower rates of pay. This is revealed even in broad occupational categories such as professional, white collar, and blue collar. He believes that to maintain their present rate of progress, Negroes will need increased high school and college attendance and completion is the greatest single obstacle to economic equality in his opinion. A policy to promote economic equality might include:

1. Special federal grants based on performance set up to reward school districts whose outstanding job of helping children of the poor can be empirically measured,

2. An increase by colleges of their active search for Negro applicants,

3. An increase in parental encouragement and help, and

4. Redesigning of jobs by employers.

Economic progress may accelerate if Negro entrepreneurship and community responsibility in educational and manpower programs are increased.

---

[26]Otto Eckstein. "Education, Employment, and Negro Equality," (speech presented at Seminar on Manpower Policy and Program, Washington, D. C., April 18, 1968), Manpower Administration, United States Department of Labor, Washington, D. C., October, 1968, p. 26.

Studies Related To Follow-Up Of Community College Students

In the United States, public community college enrollment represents 20 percent of the total of all public higher education and 30 percent of all part-time enrollment. In California, community colleges account for 66 percent of all college students and 82 percent of the part-time students in higher education.[27]

James B. Conant[28] believes that the nature of the community largely determines what goes on in school. Therefore, to attempt to divorce the school from the community is to engage in unrealistic thinking, which might lead to policies that could wreak havor with the school and the lives of children. The community and the school are inseparable.

Community colleges are continually confronted with the problem of measuring the effectiveness of their programs and evaluating the instruction given to students enrolled in their courses. Only by continuous follow-up studies can you learn how graduates are doing. Their success is a reflection of the quality of staff and the

---

[27]Stuart E. Marsee. "Who Needs the Community College?" Junior College Journal, 39 (September, 1968), p. 9.

[28]James B. Conant. "Community and School are Inseparable," in Slums and Suburbs (New York: MacGraw-Hill Book Company, 1961), p. 20.

soundness of the instructional program.

The Congress, in the Vocational Education Act of 1963, proposed that persons of all ages in all communities should have ready access to vocational education based upon individual needs, interests and abilities.

As an aid in achieving this goal, the Congress directed that an Advisory Council on Vocational Education be assembled periodically to study the nation's program of vocational education, and to report its findings and recommendations.

The first Advisory Council[29] reported that approximately 7,000,000 persons were enrolled in vocational education during the 1966-1967 school year. Enrollment increase for the three years after the Vocational Education Act of 1963 became operational was about 300 percent larger than the increase for the three years prior to the implementation of the Vocational Education Act of 1963. A large part of this increase was generated by the inclusion of office occupation programs which had been excluded before.

Out of a national sample of 606,872 graduates in October, 1966, 80 percent of the persons available for

---

[29]Advisory Council on Vocational Education, "Vocational Education--The Bridge Between Man and His Work," United States Office of Education, Department of Health, Education, and Welfare, Washington, D. C., 1968, pp. 3-5.

placement were employed in the field trained or a related field.[30]

With this tremendous growth, it is more crucial then ever that our community colleges keep pace with the needs of the communities they serve. No studies of two-year institutions could be located in which the data gathered was analyzed on an ethnic basis. However, the following studies provide some background information pertinent to this study.

Stewart Study

The purpose of Stewart's[31] study was to determine whether junior college students enrolled in vocational courses could be differentiated on the basis of certain psychological variables. Answers to the following questions were sought:

1. Do junior college students with similar characteristics tend to pursue certain vocational programs when, for the most part, the students are not screened prior to admission to the college?

2. Do students in one trade or technical program have patterns of scores on interest and personality scales which are distinctive from those of students in other vocational programs?

---

[30] Ibid., p. 6.

[31] Lawrence H. Stewart. "Characteristics of Junior College Students in Occupationally Oriented Curricula," Journal of Counseling Psychology, Vol. 13, No. 1, 1966, pp. 46-52.

3. Do students in vocational courses tend to have patterns of scores which are different from those of a cross-section of junior college students?

One group of subjects for the study consisted of 285 male students enrolled in six vocational curricula and 115 females in four such curricula. All of the subjects were obtained from a San Francisco Bay Area junior college which was, at the time (1964), devoted primarily to trade and technical education. Analyses are based on subgroups of sufficient size for meaningful results.

No systematic screening was carried out before the students were admitted to the college. Therefore, existing relationships between personal characteristics and curricular choices of these students should not be obscured by admittance procedures. In this sense, these students represent an ideal population for research on the choice process.

For comparative purposes, interest scores were available for a sample of 282 students from a second Bay Area junior college. This sample was probably more typical of California junior college students than was the vocational sample in that a large majority of the second group of subjects were enrolled in preprofessional and liberal arts courses. The test data were obtained from freshman orientation classes required of all students.

For the vocational subjects, two instruments, the Interest Assessment Scales (IAS) and the Omnibus Personality Inventory (OPI) were administered to groups of approximately twenty students each during a three-hour laboratory period.

The OPI was developed by the Center for the Study of Higher Education of the University of California (1962) as a research instrument for the study of certain characteristics of college students. The inventory is composed of self-referent items which can be answered "true" or "false." Seven of nine scales, adapted by the Center for use with students of high school age, were administered in this study.

The first analysis was concerned with the problem of whether or not the curriculum groups could be differentiated by means of their profiles of mean scores on the two instruments. Multivariate analysis of variance (MANOV) was used in this analysis.

The findings, with respect to the OPI, for both males and females were significant at the .05 levels. However, differences in means tend to be too small, at least for these subjects, to be of much practical significance in either counseling students with respect to occupational choice, or selecting them for vocational programs.

The analyses involving the profiles of IAS scores shows differences in the profiles of mean scores for the various curriculum groups, both male and female, were clearly significant (p .01). Choice of vocational curriculum was clearly related to the patterns of interest scores on the IAS.

For example, males enrolled in aeronautics tended to be interested in adventurous and daring activities, to have an applied orientation to tasks, to possess high aesthetic interests, and to have a low preference for activities involving written expression and nurturance. By way of contrast, students in electrical courses had relatively lower scores on Adventure and Aesthetic; higher, on abstract ideas. But even though the criterion groups differ significantly among themselves on the IAS scores, "Are their scores significantly different from a cross-section of junior college students?" This question was relevant if the scores were to be of potential value in identifying students, say in the last year of high school or as college freshmen, for whom vocational curricula would be appropriate.

For data relative to this question, the profiles of mean IAS scores of the vocational students were compared to those of the subjects in the comparison sample by means of MANOV. It was obvious that not only do students in

various vocational curricula differ among themselves with respect to interest scores, they also differed from other junior college students. Male vocational students tended to have higher mean scores on the Concrete Means and Aesthetic; lower mean scores on Influencing Others, Nurturance, and Written Expression. With two exceptions, the differences between the two female samples were similar to those for males. The differences tended to disappear on Concrete Means and Aesthetic.

If students in the various vocational groups were classified on the basis of IAS scores, how much overlap would there be among the groups? Data relative to this question were analyzed by means of multiple-discrimination procedures. Multiple-discriminant analysis weights the components of a profile of scores in such a manner that maximum separation is obtained among the criterion groups. The profile of scores for every member of each criterion group is then converted to a discriminant score. It was the averages (centroids) of these scores and their standard deviations which were of interest here.

In the plot for males, it was apparent that the electronics group was most clearly differentiated from the other groups. The plot for females shows that the fashion arts students tend to differ most from the other female groups.

It was obvious from the plots that there was a great deal of overlap among the criterion groups for both males and females. However, the interesting aspect of the finding, in view of the lack of preselection on the part of the institution, was that there was any significant differentiation at all among the occupational groups.

Davidson Study

The fundamental purpose of Davidson's[32] study was to determine how well the objectives of the junior college were being met as manifested in the activities of its terminal graduates. Terminal graduates were defined as those who had not been awarded a college degree at a level above the Associate in Applied Science.

The population of this study included all graduates for the years 1957 to 1961 inclusive, from the State University of New York, Agricultural and Technical College, Cobleskill, New York. These years were selected in order to better insure that terminal graduates would have had sufficient opportunity to secure employment experience, establish themselves in a community, and to exercise their right of franchise in two national elections, 1960 and

---

[32]John E. Davidson. "Junior College Terminal Graduates and Junior College Goals," (unpublished Ph.D. dissertation, State University of New York, Buffalo, New York, 1968.)

1964. The basic function of this institution is terminal in nature.

In addition to the gathering of information from a selected population, a randomly selected sample of graduates was also drawn. Data and information were also gathered from a randomly selected sample of employers of full-time employed terminal graduates.

Questionnaires were mailed to a total of 842 graduates from the junior college for the years 1957 to 1961, inclusive. The randomly selected sample of graduates and the employer sample each contained thirty-six cases. A response of slightly more than 74 percent was received from the general population in the study. Thirty-one employers, 80 percent, provided information and data on their full-time employed terminal graduates.

Because it was impossible to specifically identify terminal graduates from available college records, a limited amount of data was collected on nonterminal graduates. Approximately 20 percent of the graduates for the years under study had continued their formal education at the four-year level and had been awarded a degree at the baccalaureate level or above.

Approximately 40 percent of the terminal graduates said that, upon entry to the junior college, they had planned to continue their education at the four-year level

after completion of the junior college program. At the time of the study, however, none of these graduates had earned a degree at the baccalaureate level or above. The reason most often given by terminal graduates for not continuing their formal education at the four-year level was finances. After not having been accepted for admission at the four-year level, almost one-fourth of the total number of terminal graduates entered the community college.

The preponderance of all terminal graduates said that adequate guidance and counseling services were available to them during their attendance at the junior college. The majority of terminal graduates said that they would still attend the junior college if they were currently commencing their college career.

Terminal graduates quite generally indicated that, upon entry to the junior college, their occupational goal choice was directly related to their area of concentration within a division. Those graduates who had changed their occupational goal between entry and termination had done so because of better employment opportunities. Eighty-five percent of these graduates stipulated that their initial employment was directly or indirectly related to their major field or preparation at the junior college. The bulk of them also indicated that their current employment was directly or indirectly related to their major field of preparation.

All terminal graduates were requested to provide information concerning their yearly salary in their present employment. Salary data excluded those graduates serving in the armed forces of the United States or those who were connected with government-sponsored agencies such as the Peace Corps. Fifty-eight percent of all terminal graduates employed full-time indicated that their yearly salary fell between $5,000 and $8,000. Eighty-seven percent of all terminal graduates who responded reported yearly earnings between $3,000 and $8,000. Only 13 percent stipulated that their yearly earnings were between $8,000 and $17,000 and a total of only 4 percent reported yearly salaries between $11,000 and $17,000.

Ninety-seven percent of all terminal female graduates who were employed full time stipulated that their yearly salary fell between $3,000 and $8,000, while 77 percent of all male terminal graduates employed full time indicated that their yearly salary was between $5,000 and $11,000.

It was recommended that concerted efforts be undertaken to solve the problem of articulation that exists for terminal graduates. Some of the difficulties might be overcome if programs at the technical or semi-professional level were instituted at the upper-division level. Such programs should encourage the transfer of capable graduates

from two-year terminal programs who desire to continue their academic preparation to the baccalaureate level. Continuing efforts must be taken by this junior college and all others to maintain contact with graduates from the various programs. This includes those who transfer and those who enter gainful employment immediately upon completion of their junior college program. This would seem imperative if the junior college seeks to modify or improve its objectives, strengthen its current offerings, or institute new programs.

Hakanson Study

Three purposes are given for the University of California study by Hakanson:[33]

1. To determine whether the relationship between low socioeconomic status and low educational attainment holds when the criterion of achievement is completion of a two-year occupation-centered curriculum in a public college.

2. To examine the extent of shifting of occupational and educational goals and to compare students who enroll directly from high school in two-year, occupation-centered programs with those who first enroll in college credit transfer programs and then later change their programs.

3. To describe students in two-year occupation-centered curricula in public junior colleges in terms of selected variables: socioeconomic status, scholastic aptitude, course of study pursued in high school, and sex.

---

[33]John W. Hakanson. "Selected Characteristics, Socio-economic Status, and Levels of Attainment of Students in Public Junior College Occupation-Centered Education," University of California, Berkeley, 1967.

Six public junior colleges were selected for the investigation. Four of these were located in Midwestern states of Missouri, Kansas, Illinois, and Michigan. The other two were in California.

Data from the High School Graduate Study, previously conducted by Leland Medsker and James Trent of the University of California, were used in this research. The Medsker and Trent study was designed to survey the general intellectual, psychological and social characteristics of some 10,000, 1959 high school graduates, and to examine factors influencing attendance and persistence in college.

Data concerning personal and social characteristics and educational background were collected by questionnaire in 1959, while these students were still in high school. Information obtained for the follow-up of those in the original survey group consisted of records of performance and retention in post-secondary education, as well as employment status.

Socioeconomic status was determined by father's occupation, the occupations being broadly categorized at three levels (high, middle, and low) implying educational skill and responsibility differences. Scholastic aptitude was measured by direct or converted scores on the Scholastic Aptitude Test (SCAT). Means and ranges were computed from scores earned by the 1,011 students in the

basic group; determination of high, medium, and low categories of students was obtained in the original 10,000 group of students. Three basic high school programs were used in classifying the students: (1) Occupational-vocationally oriented program in agriculture, industrial arts, business, commercial, secretarial, (2) general, and (3) college preparatory.

Three subgroups were identified: (1) Students who had initially enrolled in a curriculum intended for later transfer to a four-year college, including some who later changed to a terminal curriculum; (2) students who had enrolled directly in a terminal program from high school and did not transfer to another program, omitting students who had initially enrolled in the two-year occupation-centered curricula who subsequently changed to transfer curricula; and (3) students from subgroups (1) and (2) who, after four years, had either completed or not completed the two-year occupation-centered curricula.

The first objective of this study being to describe the students in terms of specific characteristics, the basic method of analysis used was to make a series of comparisons of groups of students, each in terms of one of a number of selected variables testing each comparison for significance; the analysis took the form of testing a specific variation of the general null hypothesis that

there were no significant differences between the groups being compared.

There was a total of 319 students from the basic study group which spent some time in the occupation-centered curricula during the period covered by Hakanson. Of the terminal students, 90 percent were from middle and low socioeconomic status homes; women of middle socioeconomic status and men of low socioeconomic status were "over-represented" as compared to their peers among graduating high school seniors. These students earned medium and low scholastic aptitude test scores in the medium range; women of medium scholastic aptitude and men of low scholastic aptitude were over-represented as compared to their peers. Terminal students had taken occupational courses of study in secondary school in greater proportion than their colleagues, and this tendency was stronger for women than men.

Forty percent of the terminal students completed the occupation-centered curriculum. Analysis revealed that within the medium scholastic aptitude category those students with middle socioeconomic status were more likely to complete the curriculum than those with high or low socioeconomic status. Because only one out of every seven who dropped out of a college credit transfer program ever shifted to the occupation-centered program, analysis

was limited in this part of the study. Hakanson found no conclusive relationship between the socioeconomic status of a student and enrollment in a terminal program. No difference in scholastic aptitude was shown to exist between those students who enrolled in the curriculum directly from high school and those who enrolled in it after trying a college credit transfer program. The data indicated, especially for women, a strong relationship between taking an occupational course in secondary school and enrolling directly from high school in a terminal program.

The author concluded that:

1. Low and middle socioeconomic groups are more likely to complete occupational programs than are those of high status,

2. The colleges are failing in an important function of helping academic program dropouts to reassess their goals rather than withdraw,

3. The colleges should recruit more high school graduates directly into occupational programs, and

4. Students must be brought to a better understanding of their aptitudes and limitations, and of their own responsibilities for the degree to which they commit themselves to a chosen course of study.

Baird, Richards, and Shevel Study

Data for the ACT Research Report[34] were obtained as part of a comprehensive follow-up of students who took the ACT battery in 1965 and were completing their second year in a two-year college in the spring of 1967. The follow-up questionnaire was administered to 4,009 students at twenty-nine, two-year colleges. The sample colleges appear to be a reasonable cross-section of American two-year colleges.

The follow-up questionnaire was designed to provide comprehensive information about two-year college students, including items about students' backgrounds and purposes in attending college, evaluation of teachers, participation and achievement, future plans, general college satisfaction, sense of progress, finances, working and commuting.

Findings of this study were:

1. While the majority of two-year college students are oriented toward their future careers, 37 percent of the students have goals that are consistent with the values of general liberal education.

2. Two-year college students tend to describe their instructors as clear, factual, consistent, and

---

[34]Leonard L. Baird, James M. Richards, Jr., and Linda R. Shevel. "A Description of Graduates of Two-Year Colleges," American College Testing Program, Research and Development Division, Iowa City, Iowa, January, 1968.

concerned with their students. The students were also very satisfied with most aspects of their instructor's performance.

3. Students typically participated in several areas of extracurricular activity, but seldom "achieved" by attaining public recognition of their accomplishment.

4. Most students worked at least part of their two-year college careers and most commuted to campus. However, working or commuting were found to have little effect on the college experiences or achievements of two-year college students.

5. Graduates were generally satisfied with their two-year college.

6. About two-thirds of the students in the sample said they planned to transfer to a four-year college. It is difficult to estimate the proportion of students who will actually continue. Perhaps two-year colleges could encourage students who are unlikely to be able to transfer to think more realistically about their futures.

Renick Study

The Renick[35] study was conducted to determine how successfully Palomar College prepared its secretarial and clerical students for employment opportunities.

The purposes of the study were to:

1. Identify the present employment of secretarial and clerical students who attended Palomar College from 1961 through 1963,

---

[35]Evanell K. Renick. "A Follow-up Study of Secretarial and Clerical Business Students at Palomar College," (unpublished Master's thesis, San Diego State College, San Diego, California, 1964).

2. Identify the business-skill requirements necessary for initial employment.

3. Identify the percentage of students in the secretarial and clerical programs who continued their education in other institutions or those who returned to Palomar for additional education, and

4. Explain how the findings of the study could be used in improving the curriculum and guidance programs.

The questionnaire method was used with 68.4 percent (106 out of 155) of the population of the study responding.

The population of the survey was comprised of 11.3 percent who had completed one semester at Palomar, 26.4 percent who had completed two semesters, 15.1 percent who had completed three semesters, and 34.9 percent who had completed four semesters. Those respondents who attended evening classes made up 12.3 percent of the population. Twenty-six of the thirty-seven respondents who attended four semesters received an A.A. degree.

Reasons given by former students for leaving Palomar showed 31.2 percent left to accept employment, 27.1 percent graduated, and 14.6 percent transferred to another school. Seventy-five percent of the respondents indicated they received no additional education after leaving Palomar.

The population surveyed indicated 33.1 percent were employed in clerical occupations, 28.3 percent were employed

in secretarial positions, and 6.6 percent were employed in the sales field. The clerical occupations employed the greatest number of respondents who attended college only one semester. All had been in their present positions more than six months. Respondents who attended two semesters were almost equally divided between the secretarial and clerical occupations. Eleven of the twenty-three employed in this group had been in their present positions more than one year. Only half of the respondents who attended Palomar three semesters were employed in secretarial-clerical jobs. Of the ten employed respondents, eight had been in their present jobs less than one year. Of the twenty-seven employed respondents who attended four semesters, twenty-two were employed in secretarial and clerical positions. Twelve had been in their present positions over one year.

All secretarial respondents were employed on a full-time basis, while approximately 36 percent of the clerical employees were on a part-time basis. Secretarial employees received approximately $10 more weekly salary than clerical employees, and clerical employees received about $10 more weekly salary than respondents in other types of jobs. Each additional semester of education increased the weekly salary proportionately in all types of employment.

Both secretarial and clerical respondents indicated 50 to 60 words per minute in typewriting were necessary

for employment. Of the secretarial employees, 46.7 percent indicated the necessary shorthand dictation requirement was 100 gross words per minute, and 33.3 percent indicated 80 gross words per minute were the necessary requirement for employment. The various types of office machines used were also determined.

A wider variety of courses and better counseling were listed by the greatest number of respondents as ways their experiences at Palomar could have been more helpful.

Schultz Study

Studies on the success of two-year college students show that as a group such students perform satisfactorily in senior colleges. However, Schultz[36] found that very little is known about the subsequent success of those students who excelled academically (honor students) while in junior college. His study is limited to current and former junior college honor students. More specifically, the population consisted of those who were initiated into Phi Theta Kappa, the national junior college scholastic honorary. To be eligible for membership, a student must be carrying a full load, have completed at least one term (quarter or semester), and rank in the upper 10 percent of the student

---

[36]Raymond E. Schultz. "A Follow-Up on Honor Students," Junior College Journal, Vol. 38, No. 4, January, 1968, pp. 9-15.

body academically. One hundred and twelve chapters of Phi Theta Kappa, representing thirty states, were included in the study.

One of the purposes of the study was to provide the officers and executive director of Phi Theta Kappa with information that they could use in determining how the fraternity might better serve its primary purpose of promoting scholarship through recognizing and encouraging outstanding student achievement in junior college.

Several other purposes were served by the study, among them:

1. To assess the personal characteristics and backgrounds of junior college honor students,

2. To obtain from junior college honor students, who transfer to senior college, their evaluations of the two types of institutions,

3. To determine the educational endeavors of junior college honor students after leaving the junior college,

4. To determine the careers subsequently pursued by junior college students, and

5. To determine the citizenship roles assumed in adult life by junior college honor students.

A questionnaire was developed in two forms, one for current students who were Phi Theta Kappa members and the other for former students who were Phi Theta Kappa members.

The identified population represented over 95 percent of the current members and 66.4 percent of the alumni

members (of participating institutions) for the years covered by the study. The percentage for alumni was computed by eliminating those questionnaires which were returned because of inadequate addresses.

The findings of this study strongly support the claim long made by advocates of the junior college; namely, that students of high ability are not penalized by taking their first two years of college in a junior college. Former honor students were warm in their praise of the junior college. Virtually none felt penalized for having attended a junior college. Most stated that they would make the same decision again. That view was reinforced by the fact that a substantial majority reported that they would send their own children to a junior college.

They were complimentary of the quality of instruction and guidance which they received in junior college. Overall, they considered it superior to that which they received in senior college. Further, the majority ranked their "best" junior college instructor equal to, or better than, their "best" senior college instructor.

Figures for public institutions indicate that junior college women students win academic honors in greater proportion to their numbers than do men. No generalizations

were possible for the private institutions since women's colleges were represented in this group much more frequently than were coeducational and men's junior colleges.

Over 60 percent of both groups were first generation college students, and less than one in five were from homes where the head of the family had a four-year college degree.

A number of items on the questionnaire provided evaluations of the junior college experience. The fact that these evaluations were made by very capable students, most of whom continued to senior college, would seem to make them especially significant.

A substantial majority were of the opinion that they definitely or probably would again enroll in a junior college. Further, the feeling in this respect was stronger for the current student group than for the alumni and stronger by those who attended public, than those who attended private institutions.

Approximately three-fourths of both the public and private junior college groups were of the opinion that a student of high ability definitely or probably can obtain as good an education in a junior college as he can by attending a senior college his first two years. Further, less than 10 percent expressed the view that a student of high ability probably or definitely cannot receive as good an education in a junior college.

The comparison of counseling and guidance services favors slightly the junior college over the senior college. Those who attended private junior colleges were somewhat more favorably disposed toward the counseling and guidance they received there than those who attended public junior colleges.

Two types of comparisons of teaching between junior and senior college were obtained:

1. An overall comparison of the quality of teaching received in the two types of institutions, and

2. A comparison of the best junior college teacher with the best senior college teacher.

These honor students were, indeed, complimentary of the teaching they received in junior college.

A high proportion of these honor students continued their education at senior college. The proportion of those who graduated from senior college was also high. Of the men, 90.6 percent matriculated to senior colleges and 97.6 percent of those transferring were graduated from senior college. Of the women, 68.3 percent matriculated to senior colleges and 90.3 percent of those transferring were graduated from senior college.

Not only did most who transfer complete senior college, but the men, especially, selected what are considered difficult majors. Almost one half of the men (49.9 percent) majored in a scientific field with engineering being by far

the most popular major followed by mathematics and chemistry. The women, by contrast, concentrated their majors in the humanities and professional education. Within the humanistic field, the most popular major for women was English, followed by music and foreign languages.

Relatively few of the men majored in education, the humanities, and social sciences. Relatively few of the women majored in the social sciences and such professional fields as business, home economics, and social work.

Schultz felt that the findings of this study demonstrated that junior colleges, especially those which are public, contribute very significantly to the American dream of a free and open society. A large proportion of these honor students were from humble backgrounds, homes of limited financial means, large families, and limited education. Many of them would probably not have continued their education beyond high school had not a junior college existed in the community where they lived.

Studies Related To The Employment Situation And Vocational Education Needs

In the first report of the Advisory Council on Vocational Education,[37] published by the United States

---

[37]Advisory Council on Vocational Education. "Vocational Education--The Bridge Between Man and His Work," United States Office of Education, Department of Health, Education, and Welfare, 1968, p. 9.

Office of Education, Department of Health, Education, and Welfare, the following statistics on unemployment were given for 1966:

14-19 years (Both sexes)	12.0%
20 years and over (Men)	2.5%
20 years and over (Women)	3.8%
White	3.4%
Nonwhite	7.5%

Percentages such as these point out the need for a thorough re-examination of our educational philosophy and policies.

Morse[38] believes that, if America is to survive as a free democracy in this new technological society in which we live, we must overhaul our educational system and design programs which are calculated to prepare our citizens, and particularly our youngsters, for life in a world of work which demands skilled workers.

Two principal vocational enactments, in 1963 and 1968, have extended the concept of an educational partnership between business and education that was first mandated by the Smith-Hughes Act of 1917. To translate the 1968

---

[38]Wayne Morse. "Education for Jobs in A Technological Society," (speech presented at the Annual Vocational Convention of the American Vocational Association, 62nd, Dallas, December 10, 1968), Document No. VT 008216,December, 1968, 9pp.

amendments into action which is educationally relevant to our times, will demand the continued partnership of business, industry, vocational educators, and government.

The enlarged federal role in education does not relieve others of their responsibilities. One of the main purposes of a statement on national policy[39] was to urge greater efforts by states, localities, and private business to discharge their responsibility to improve and extend education and training which would contribute to raising the productivity. The President's Committee[40] on youth employment had previously reflected a broad consensus that new and stimulating policies for education and training, guidance, employment opportunities, and economic growth were imperative.

In 1962, Wolfbein[41] estimated that during the 1960's employment of professional and technical personnel would be

---

[39]Committee for Economic Development, "Raising Low Incomes Through Improved Education, A Statement on National Policy," Research and Policy Committee, New York, September, 1965.

[40]President's Committee on Youth Employment, "Reports of Subcommittees of the President's Committee on Youth Employment," Washington, D. C., June,1963.

[41]Seymour L. Wolfbein. "Automation and Skill," Annals of the American Academy of Political and Social Science, (March, 1962), 57.

at a rate double that of the growth of the work force as a whole. In discussing the changes occuring in the manpower needs of the nation, Harris[42] suggested that in the future the largest increases would be in the broad range of "middle level" occupations. He predicted that jobs at this level would account for 50 percent or more of the labor force by 1970. Projections for the employment growth of the next decade, which were made in the "President's Manpower Report, 1965,"[43] stated that "Professional, technical and kindred workers, service workers, and clerical workers would increase more than average; operatives less than average; nonfarm laborers, no change; and farm workers, a decline."

The world of work is complex and demands a multitude of occupational skills. The immediate needs of the labor market are changing rapidly. To match aptitudes and interests of students with labor market demands becomes increasingly difficult.

The importance of planning education and training programs to meet the manpower needs of our rapidly changing

---

[42]Norman C. Harris. "The Community Junior College--A Solution to the Skilled Manpower Problem," in Higher Education in an Age of Revolution, ed. by G. Kerry Smith. Washington, D. C.: Association for Higher Education, 1962, p. 111.

[43]President's Manpower Report, 1965 (Washington, D. C.: Government Printing Office, 1965), pp. 54-55.

economy has resulted in increased activity in manpower forecasting.[44]

A study[45] conducted at the request of the national commission on technology, automation, and economic progress projects the manpower requirements of the United States to 1975 under the assumption that the unemployment rate will be 3 percent. The major conclusion of the study, which takes into account every technological change in American industry that can be identified and makes a careful appraisal of its potential effect on employment, is that the overall demand for less skilled workers will not decrease over this eleven year period. Although it will decline somewhat as a percentage of the total. Other findings include:

1. Given the projected growth of the labor force, the assumptions made imply that 88.7 million persons will be gainfully employed in 1975, 18.3 million more than in 1964,

2. While farm employment is expected to decline by about one million, all other employment is expected to increase by over 19 million,

3. Requirements of goods producing industries will increase by 17 percent and those in the service producing sector, by 38 percent,

---

[44]Robert C. Goodwin. "Locating Manpower Needs," United States Department of Labor, American Vocational Journal, Vol. 43, No. 6, September, 1968, pp. 16-21.

[45]Bureau of Labor Statistics. America's Industrial and Occupational Manpower Requirements, 1964-1975 (Washington D. C.: Department of Labor, January, 1966), 188 pp.

4. The effect of these trends will be to continue recent changes in the industrial composition of the economy,

5. Occupationally, the greatest increase in requirements will be for professional and technical workers. An increase of 54 percent or 4.5 million additional personnel, and

6. The occupational requirement changes could most adversely affect nonwhite workers, young workers, and women workers.

In addition to the state and area data produced by the Federal-State Employment Security System, a considerable amount of national employment information is produced by the Bureau of Statistics. The 1968 edition of the Occupational Outlook handbook, issued by the Bureau of Labor Statistics, contains information on national occupational trends in about 700 occupations and 30 major industries. The highlights which should interest vocational educators and counselors are these:

> Employment growth will be fastest in occupations which require the most education and training to enter.
>
> The high school diploma has become standard for Americans in the work force. (Employers are seeking people with higher levels of education because job content is more complex and requires higher levels of skill. Many rapidly growing jobs in the clerical, sales, and service fields reflect this trend.)[46]

---

[46] Ibid.

In the current decade (1965-75) employment in sales and clerical occupations is expected to rise about 25 percent. The handbook points out that in the clerical occupations, technological innovations, including computers, have revamped the work of office machine operators. Although fields such as computer technology are less numerous than traditional clerical fields, they show the fastest growth in employment.

The Bureau of Labor Statistics estimates that employment of professional and technical workers will increase by 40 percent over the next decade. Of particular interest to vocational educators in this connection, is the prediction that rapid growth is expected to continue in the demand for workers in the health occupations, especially for paramedical personnel who assist professional workers in performing routine tasks.

Administrators of technical institutions and junior colleges will also be interested in the rapid growth rate predicted for technicians to assist engineers and scientists.

Employment in service occupations is predicted to increase by 30 percent in the next ten years, with the greatest growth seen among service workers outside of private households, particularly among food service workers, hospital attendants, and protective service workers.

The handbook indicates that an increase in employment of a little less than 20 percent is anticipated for the skilled work force in such occupations as construction craftsmen, mechanics and repairmen, machinists, and foremen.

Swanson[47] believes there is little doubt that business and industry will be forced by government action and the changing conditions of our society to accept sociological responsibilities--including jobs for persons who are considered unemployable.

How, then, can schools, government, and industry work effectively in an employment-education relationship?

One of the unique features of vocational education is that the course content and the number of persons being taught must be related to labor market needs. To meet these qualitative and quantitative requirements, is a complicated task. Job analyses must be made and the curriculum content organized to develop the skills and knowledge necessary for success in a particular job.

Curriculum development must be undertaken for each job which training is to be given. It must be reviewed often to ascertain whether the demands of the job are

---

[47]Chester J. Swanson. "Can We Carry Out the 1963 Mandate for A Total Program?" American Vocational Journal, Vol. 43, No. 6, September, 1968, pp. 29-30.

changing. This means that the obsolescence must be recognized in terms of equipment, skills, knowledge, and even programs and teachers.

To analyze occupations for up-to-date content and develop curriculums accordingly, requires the time and effort of persons with special skills.

The difficulty of obtaining satisfactory information concerning the number of persons to be trained for specific occupations is a continuing problem.[48]

Vocational educators, who must prepare workers for increasingly complex industrial processes, have a need also for more specialized information on trends in the supply and demand for particular skills, the composition of the labor force, and the location of manpower, according to Johnson.[49]

He continues with the following statistics which he believes to be of interest to vocational educators. First, and perhaps most obvious, is the size and composition of the population. The United States today has a population of over 200 million. It is increasing by one person every fourteen and one-half seconds and by the year 2000 may reach 300 million. (In 1790, when the first census was taken, it was approximately 4 million.)

---

[48] Ibid.

[49] Charles E. Johnson, Jr. "What You Should Know About Current Population Trends," American Vocational Journal, Vol. 43, No. 8, November 1968, pp. 25-27.

The Negro population has been growing faster than the total in recent years. Between 1960 and 1967 it grew by 14.8 percent, as compared with 8.4 percent increase in white population. However, the proportion of Negroes has remained relatively constant since the turn of the century. In 1900 Negroes comprised 12 percent of the total population and today, 11 percent.

The increase in the population 18 to 21 years of age--the ages at which people attend college, enter the labor force, get married, and begin new families--is most striking. In 1960 there were approximately 9.5 million persons in this age group; in 1968, 14.3 million; and by 1975 there will be 16.2 million--an increase of 71 percent between 1960 and 1975.

The population of the United States is highly mobile. About one person in five moves to a new address every year, and about 3 percent of the population move to another state every year.

Although the educational level of the population is rising, there is a continued need for emphasis on vocational training. As of last year, among young adults 25 to 29 years old (a group which would recently have completed their schooling), 85 percent had finished less than four years of college. And it is estimated that even in 1975, this figure will not have declined below 83 percent.

For those who graduate from college, education and occupational training may be virtually synonymous, but many of the more than eight out of ten persons who do not graduate will need vocational training to obtain employment and secure an adequate income.

Vocational educators will be aware of the continuing shift from blue collar to white collar employment and the sharp increase in the past twenty years in employment in the professional and technical occupations. Employment in these occupations increased from 4 million persons in 1947 to 10.5 million in 1968--an increase of 169 percent.

Along with the population increase and higher educational attainment, incomes in the United States are going up. The median family income went up from $3,031 in 1947 to $8,017 in 1967. While rising prices washed out some of this gain, there was, nevertheless, a real increase. The $3,031 income in 1947 was worth $4,531 in constant 1967 dollars (that is, in terms of 1967 buying power). Comparison of the 1947 income in constant 1967 dollars with the 1967 income, shows that in real dollars, the 1967 income had increased by 77 percent.

Much credit must be given to the vocational educator for his work in preparing the current generation with the skills and training necessary to effectively participate in today's complex, industrial society. However,

even greater demands will be made of him in the future as our population increases and as we attempt to increase the economic and social opportunities of the coming generation.[50]

The Bureau of the Census[51] has based unpublished population projections by color, and on the assumption that past trends in labor force participation rates will continue, that the size of the armed forces will not change significantly, and that the economy will operate at relatively high levels consistent with an unemployment rate of about 4 percent.

Recognizing the uncertainty of the projections, it is estimated that between 1965 and 1980:

1. The total nonwhite labor force will have risen by 41 percent compared with only a 29 percent increase in white workers,

2. The number of nonwhite workers will increase from 8.7 million to 12.3 million, while whites will increase from 69.7 million to 89.1 million,

3. The expected growth of the total population accounts for 86 percent of the projected labor force increase,

---

[50] Ibid.

[51] The projections are based upon unpublished population projections by color which are consistent with Series B in "Projections of the Population of the United States, by Age and Sex: 1964 to 1985," Current Population Reports, Series P-25, No. 286, United States Bureau of the Census, 1964.

4. The number of young, ages 14 to 24, nonwhite workers will increase by nearly 30 percent and young white workers by 20 percent, and

5. Among workers aged 23 to 54, the number of white women will increase by about 31 percent, nonwhite women by 27 percent, nonwhite men by 3 percent, and white men will not increase.

Before examining these projections further, a few precautions should be noted. In the first place, recent legislation aimed at providing equality of opportunity and reducing the effects of past disparities in education will, in the long run, have more effect on the social and economic status of nonwhites than whites. But it is not easy to estimate this effect on future labor force activity of nonwhite men and women.

Second, the reported rates of labor forces participation for most of the age and sex groups of the nonwhite population show greater changes than those of the whites. Much of this fluctuation can be attributed to the greater sampling variability associated with the smaller numbers of nonwhites, but it is also likely that sensitivity to changes in the economic situation may be disproportionately strong among nonwhite workers.

Third, these projections have not been developed in the same detail as the overall national projections issued in 1965. A breakdown by color of past trends and projections of school enrollment of persons under 25 years of age,

and of marriage and fertility of women in the childbearing age, was not available in a form useful in developing detailed projections of labor force participation rates.

Fourth, the size and age distributions of the projected nonwhite population are subject to greater uncertainty than those of the whites, in view of the evidence of serious undercounting, especially of adult nonwhite males. Also, any bias which may exist in age reporting is carried forward in the projection and is, therefore, reflected in the projected nonwhite labor force.[52]

Finally, the projection of labor force by color is subject to the same uncertainties as the projection of total labor force,[53] the primary one being that they are based on judgments as to future changes in labor force participation rates. These judgments are that past trends will continue, that there will be no significant change in the size of the Armed Forces, and that the economy will operate at relatively high levels consistent with an unemployment rate of about 4 percent.

---

[52]Sophia Cooper and Denis F. Johnston. "Labor Force Projections by Color, 1970-80," Monthly Labor Review, (February, 1965), 129-140. Reprinted as Special Labor Force Report No. 49.

[53]Sophia Cooper and Denis F. Johnston, op. cit., p. 134.

In view of the lack of precision that is necessarily introduced into the projections by the above factors, neither a mathematical nor a judgmental approach can be relied upon to yield a definitive picture of the future growth of the nonwhite labor force. Consequently, divergencies of actual labor force from these projected levels should not be interpreted as a deficiency in the performance of the economy.

Recent social, economic, and political developments have helped to improve the status of nonwhite women workers,[54] but there are still substantial differences in the employment patterns of nonwhite and white women. A higher percentage of nonwhite are in the labor force and are working wives and working mothers. In general, nonwhite have higher unemployment rates, lower income, and less schooling than white, and more are concentrated in low-skilled, low-wage occupations. The 3.5 million in the labor force in 1965 were 46 percent of all nonwhite women. Of those women with children 6-17 years of age, 58 percent of the nonwhite are workers. They were in all major occupational groups. Thirty percent were private household work, 25 percent in service work, and 11 percent in clerical work. About 30

---

[54]Bureau of Census. "Fact Sheet on Nonwhite Workers," Washington, D. C., Department of Labor (Report No. WB-67-107), October, 1966, 4pp.

percent of nonwhite women reported some income in 1964. The median was $1,066, while that of the full-time, year-round workers was $2,674. About 324,000 nonwhite women were seeking work in 1965. The median number of school years completed by nonwhite women workers 18 years and over in March, 1965, was 11.1 years schooling, 29 percent had completed high school, and 8 percent had graduated from college.

In a Special Labor Force Report,[55] the employment situation of Negro and white workers in metropolitan areas was compared by using data collected in the March 1966 "Current Population Survey." Poverty tracts in the large metropolitan areas were identified, and employment characteristics of persons living there were compared with those of city dwellers outside the poverty tracts. Some findings were:

1. The average unemployment rate for workers in poverty areas was 7.5 percent, about double the rate for the United States as a whole,

2. The teenage unemployment rate in poverty areas was nearly 25 percent,

3. In the big cities of America, more than half the Negroes, but only one-tenth of the whites, live in poverty areas,

---

[55]James R. Wetzel and Susan B. Holland. "Poverty Areas of Our Major Cities," Monthly Labor Review, (October, 1966), p. 10.

4. In several respects, the employment situation of white workers in poverty areas was better than that of Negro workers not living in poverty areas,

5. Poverty area dwellers, Negroes in particular, were concentrated in less secure, less desirable, and less rewarding jobs than their counterparts in the more affluent parts of the city,

6. Old age and serious disability were important factors holding white men out of the labor force and keeping them in poverty areas, while among Negroes serious disability appeared to be the key factor, and

7. As of March, 1966, a minimum of 250,000 additional jobs would have been required to reduce the poverty area unemployment rates to the level of those white residents in nonpoverty areas.

To study the application of equal employment practices[56] in company settings and to assess the impact of these practices on minority group employment, thirty companies with varying employment structure, size, industry, number of branch units, geographical spread, and product or service were studied. All were trying to promote equal opportunities in their firms. Data were obtained from union officials, 134 company officials, 205 white workers including survivors, and 215 Negro workers who were

---

[56]Louis A. Ferman. "The Negro and Equal Employment Opportunities, A Review of Management Experiences in Thirty Companies," Michigan University, Ann Arbor, Institute of Labor and Industrial Relations, December, 1966.

interviewed by persons of their own race to facilitate frankness. The findings included:

1. Management reported more equal opportunities achievements in developing new recruitment procedures than in training and promotion practices,

2. Management viewed the Negro job problem as a community rather than a company responsibility.

3. Union unwillingness to modify seniority and apprenticeship structures had been a barrier to equal opportunity,

4. Few white workers admitted that Negroes had any special job difficulties because of skin color,

5. The major fear of whites was the envisioned threat of preferential hiring practices for Negroes,

6. Negro workers felt that there was considerable job discrimination against them in hiring, training, and promotions, and they believed that their lack of opportunity was more a matter of their skin color than their lack of training, and

7. The negro promotion rate was, in fact, lower than the white rate.

Recommendations included the necessity for continued monitoring of company equal employment practices by outside agencies with statutory powers to effect change.

A review of the eleven-year period, 1956-66, by the Bureau of Labor Statistics,[57] shows differences within the

---

[57]Paul M. Ryscavage. "Changes in Occupational Employment Over The Past Decade," Monthly Labor Review, Vol. 90, No. 8, August, 1967, p. 6.

major occupational groups in their responsiveness to business cycles, technological changes, and economic growth. Employment statistics, based on the monthly survey conducted by the Bureau of the Census, shows:

1. For both white - and blue-collar workers rates of growth were strongly affected by general economic trends,

2. The recent strong expansion in the durable-goods manufacturing industries, where employment increased at an annual average rate of 6.5 percent, especially affected blue-collar employment growth,

3. During the present expansion, the growth rate of clerical employment accelerated to 4.1 percent per year,

4. Professional employment rates showed no acceleration between 1962 and 1966 which suggests that professional employment is less responsive to upswings in economic activity than is clerical employment,

5. The unemployment rate for white-collar workers, except in 1961, never rose above the 3 percent level, and

6. During the 10-year period, blue-collar unemployment rate always exceeded the experienced-worker rate and fell below 5 percent in 1966 only.

Although women[58] have been part of the rising number of professional and technical workers, they are not fulfilling their potential. Women in professions and technical positions have increased from 1.6 million prior to World

---

[58]Women's Bureau. "Fact Sheet on Women in Professional and Technical Positions," Department of Labor Report Number WB-67-164, Washington, D. C., November, 1966, 7 pp.

War II to 3.6 million in October, 1966, but they held only 38 percent of these jobs October, 1966, as compared with 45 percent in 1940. The percentage of women professional and technical workers in teaching and health occupations has dropped from 71 percent in 1960, to 67 percent in 1966. Only 22 percent of the faculty of institutions of higher learning are women, and there has been a sharp decline in female secondary teachers. Although women were heavily represented in the health fields in 1964, only 6 percent were physicians. Similarly, women represented only 8 percent of the scientists, 3 percent of the lawyers, and 1 percent of the engineers. Of boy high school graduates, in 1965, 64 percent entered higher education, compared with 46 percent of girl graduates. The number of women earning degrees has increased significantly, but the disparity in the proportion of degrees earned by women and men is as great as it was in 1930. At the advanced degree level, the disparity is greater and has widened since 1930. More than one-fifth of the employed women with four years of college and 7 percent of those with five years of college were working as service workers, operatives, or clerical workers in March 1965. The demand for skilled and highly trained workers cannot be met by men alone. Unless more professions are opened to women and women are trained to enter them, the needs of the nation will not be met.

Information on the differences in job tenure[59] of workers by age, sex, color, industry, and occupation was gathered by the current population survey of the Bureau of the Census for the week ending January 15, 1966. Data showed that employees stayed with the same job or employer an average of 4.2 years, a slight decline from the 4.6 years measured in the January 1963 survey. Men averaged nearly twice the length of time on the current job as women in both the 1966 and 1963 survey, and the job tenure for men was significantly greater in each age group. One-third of the employed men, but only one-fifth of the employed women, had ten years or more of consecutive employment. Negro men averaged fewer years on their current job than white men, but there was almost no difference in job tenure between white and negro women. Occupationally, self-employed farmers and professionals, managers, and craftsmen had the longest continuous association with the same employer. Description of the research methodology and ten additional detailed tables are included.

The effects of various personal characteristics upon the re-employability of unemployed workers were evaluated by Schweitzer.[60] Data were obtained from a questionnaire

---

[59]Harvey R. Hamel. "Job Tenure of Workers," Monthly Labor Review, January, 1967, 25pp.

[60]S. O. Schweitzer. "New Evidence on Problems of Re-employment," Monthly Labor Review, Vol. 90, No. 8, August, 1967, p. 5.

administered to a sample of 6,500 unemployment insurance recipients in California during the period from November, 1963 to October, 1964. Comparisons were made between those who found jobs before their unemployment insurance benefits expired and those who had exhausted their benefits. The individual's wage rate prior to employment was found to be the most significant factor differentiating the two groups. It was lowest for exhaustees. For each of the following characteristics, except work experience, there was a statistically significant difference (listed in order of magnitude of difference from high to low) between the groups--unemployment rate, race, major support of dependent, industrial transferability, age, education, sex, college diploma, high school diploma, and work experience. When "skill" (a weighted function of the worker's education and work experience) was studied in relation to other variables, its importance for re-employability was inconsistent. In testing the occupational specialization variable, it was suggested that the more concentrated the worker's occupation with respect to industrial employment, the greater his ease of finding re-employment. This result may be due to the generally high levels of unemployment in California (6 percent) during the sample period.

Information acquired from six supplements to the regular "current population survey" between June 1964 and June 1966, was used to examine the reasons unemployed members of the labor force began to look for work.[61] The data, when averaged, revealed that during this period of rapid economic expansion:

1. Forty percent had lost their previous jobs,
2. Fifteen percent had quit their last jobs,
3. Twenty-five percent were re-entering the labor force after a period of absence, and
4. Twenty percent were new entrants who had never held a full-time job.

In June, 1966, job losers, those whose employment was terminated or those on layoff, accounted for one-fourth of all unemployed persons, and in December, 1964 and January, 1966, the proportion had risen to one-half. The Negro job-loser rate was about two and one-half times the white rate. Persons who left their jobs voluntarily and immediately began to look for work accounted for 12 to 18 percent of the unemployed. The data suggest that the new entrant rate during the periods of abundant job opportunities may keep unemployment rates up. Since overall economic expansion seems to affect entrant and

---

[61] Kathryn D. Hayle. "Why the Unemployed Looked for Work," Monthly Labor Review (January, 1967), p. 11.

job-leaver rates very little and very slowly, job market programs aimed to specific groups will be needed to reduce the total unemployment rate below three and one-half percent.

The three major focuses of manpower policy and programs in 1967 were on the concentration and unification of manpower forces to help the nation's most disadvantaged people achieve employability and decently paid jobs, on greatly increased efforts to involve private industry in the training and job adjustment of the hard-core unemployed, and on new program developments aimed at greater flexibility in meeting the divergent needs of different individuals and groups. Some of the measures aimed at speeding progress in these directions were:

1. Expanding the Concentrated Employment Program, designed to coordinate the attack on hard-core unemployment,

2. Strengthening and streamlining the Manpower Administration, the instrument within the Federal Government which manages almost 80 percent of our manpower programs,

3. Establishing the Cooperative Area Manpower Planning System, begun in 1967, on a long-term basis,

4. Establishing the Job Opportunities in Business Sector (JOBS) program, a new partnership between government and private industry to train and hire the hard-core unemployed, and

5. Establishing the Work Incentive Program (WIN) of work and training for unemployable people on public assistance.

A budgetary increase of 25 percent was recommended for 1969 manpower programs.[62]

Stringer[63] says that we do not have definitive information concerning the extent of unemployment caused by technological change, but we do have good reason to believe that the rate of change has increased and that institutions have not kept pace with technological change. While larger numbers of labor force members are affected by skill obsolescence, there has also developed an increasingly imperfect market mechanism for labor. The basic point is that in order to provide for quicker anticipation of changes, better utilization of information, and development of new types of programs, our institutions concerned with education, placement, counseling, and technologically advanced period must be geared toward a program of life-cycle education that permits people to return again and again for retraining or further education, with a minimal loss of income whenever the need is urgent. Military training is an example of one of a number of

---

[62]Department of Labor. "New Developments in Manpower Programs." (Information appears in Manpower Report of the President and Report on Manpower Requirements, Resources, Utilization, and Training, 1968), April, 1968, p. 20.

[63]Herbert E. Stringer. "Training in the Perspective of Technological Change," (Seminar on Manpower Policy and Program), Manpower Administration, Washington, D. C., January, 1966, 29 pp.

precedents for such a plan. Stringer believes that the new educational institution must use complicated, sophisticated, job market surveys to devise curriculum content. Agencies must work out new, more effective survey and analytical techniques and more effective communication and cooperation with school and industry. State and federal agencies must work out new, more effective survey and analytical techniques and more effective communication and cooperation with schools, industry, and other government agencies.

The Manpower Research Council[64] conducted a survey of 200 member corporations, employing a total of 824,772 people, to show the effects of automation on employment. Some of the findings of the study were:

1. Forty-three percent believe that automation will increase the total number of jobs within the next five years, 28 percent feel it will decrease the number of jobs, and 29 percent feel the number of jobs will remain about the same.

2. Seventy-five percent indicated that automation has added new jobs in their company in the last year, and

3. Twenty-eight percent indicated that they are presently short of personnel in job categories specifically related to automation.

---

[64]Manpower Research Council, "Automation," Milwaukee, Wisconsin, Report No. MRC-RR-2, November, 1964, 9 pp.

the effect of automation on employees was minimized by normal attrition, and training displaced employees for new jobs.

Educators needed to be familiar with the nature and extent of education or training being done in business and industry in order to avoid duplication as new curricula are planned. McLure[65] conducted a study in Richmond, California to develop general knowledge of the training done by employers in a representative community.

About 210 interviews conducted in all firms with ten or more employees reached about 90 percent of the employment in Richmond. Another 1,365 questionnaires were mailed to employers with less than ten employees.

Some of the conclusions were:

1. The nature and extent of training in an organization is determined by the presence of someone who believes in the value of planned training and has sufficient influence in the organization to bring it about.

2. Most on-the-job training is casual and spontaneous and probably laden with hidden costs, with only about 10 percent of the employers using planned job instruction in operative and clerical occupations.

---

[65]John A. McLure. "A Study of Educational Activities Within Business and Industry in Richmond, California," University of California, Berkeley, (Department of Health, Education, and Welfare Report) September, 1967, 101 pp.

3. Employee selected away-from-the-job training does not reach enough employees who would benefit from adult education.

4. Few employers provide away-from-the-job training, and many are unaware of these training services.

5. Employers often need guidance and assurance in their initial training planning.

6. Deficiencies of graduates most mentioned by employers were lack of willingness to do their best on assigned tasks, lack of basic communicative and arithmetic skills, and ignorance of the world of work.

7. Over half of the employers believe that communication and cooperation between educators and employers need to be improved and they expect educators to take the initiative, and

8. Apprenticeship training in Richmond is inadequate.

According to the Richmond report, it would seem that the schools must provide the major portion of the vocational education for today's youth. To meet this challenge, community colleges must analyze the national, state, and local statistical data in order to identify the economic characteristics and occupational requirements which provide the basis for curriculum planning. National studies can be used to identify the technology and manpower needs of the future. With this information and the help of a local advisory committee, occupational curricula can be developed to meet the needs of the students in the college community.

Summary

Studies Concerned With The Education of Minority Groups

There tends to be limited and inadequate data concerning the education of minority groups. The major reason for the dearth of data stems from national policy. Until late 1965, this policy prohibited the collection of data based on race. However, prior to 1965, some studies were conducted of primarily Negro institutions. Such comparisons may be valid today, or they may not. Unfortunately, even less study data is available for Mexican-Americans.

The studies do, however, contain some common threads which may permit some generalizations. For example, inadequate financing for college education by ghetto youth constitutes a serious handicap for any post high school education. Closely related, the studies tend to show that within minority groups there own socioeconomic status tends to determine occupational aspiration and degree of success.

Minority students typically show a preference for socially oriented occupations rather than jobs resulting from traditional vocational programs. Industry and union attitudes have generally kept Negro youth from apprenticeship programs. Business and industry acceptance of minority

groups for employment is closely related to minority group acceptance to prepare for those jobs.

Even with occupational training, Negroes tend to have a higher unemployment rate and earn less money than comparably trained whites. As a result, Negro youth have strived toward professional and paraprofessional type education and training.

Studies Related to Follow-up of Community College Students

No follow-up studies were located in which data were analyzed on an ethnic basis. However, the search of the literature seems to indicate vocational students tend to come from low to middle socioeconomic status, which may indicate the inclusion of disadvantaged ethnic minority students and, therefore, have relevance to this study.

Vocational students tend to choose a vocational curriculum related to their interests. If the student is oriented toward social problems, he tends to select a socially oriented curriculum. While vocational students differ in their interest among themselves, they tend also to differ from other community college students.

The vocational student, on entry to the community college, frequently indicates transfer as an objective. Usually, he does not transfer. The longer he stays in

college and receives additional education and training, a higher level of employment is achieved within an occupational family.

Students who enroll in transfer programs tend not to reorient toward vocational programs. More recruitment effort is needed into occupational programs rather than to redirection after failure in a transfer program.

Community college graduates on the job are usually satisfied with, and complimenting of, their community college program. They tend to indicate a "do-it-again" attitude. They are typically in jobs related to their education and feel that their education helped them.

Studies Related to Employment

Needs and Vocational Education

Traditionally, vocational educators have worked from previous employment statistics and short-range projections. The changing nature of the economy, technology, and population explosion have resulted in a new manpower projection technique. Manpower needs take into account all training programs as well as the typical vocational education programs. This new manpower concept also takes into account socioeconomic need, ethnic grouping, and social policy. The new national policy for planning education and training to meet manpower needs has resulted in increased activity in manpower forecasting.

Manpower forecasting examines by race, the unemployment of nonwhites at present, the nonwhite population increase, and then projects that nonwhite employment in the young workers, 14-24, will increase 30 percent to a 20 percent increase in white employment.

Manpower planning has tremendous significance for vocational programs. The colleges are no longer charged to prepare for a job. Under the new national policy a racially, ethnically, and poverty balance must be strived for in vocational education.

Planning vocational programs in the future may not be as locally oriented as in the past. The major focus of national manpower policy has been to concentrate and unify manpower forces to assist the nation's most disadvantaged persons achieve employability and stability in decently paid jobs. The schools may not be able to do the job alone. Business and industry have a role to play. Vocational education is being challenged as the sole resource to meet the manpower needs of the future.

CHAPTER III

RESEARCH DESIGN AND PROCEDURES

Selection of a research project that would be of value to vocational education in the community colleges was discussed with Dr. Otto Heinkel, Director of Research for the San Diego Community Colleges. With the present unrest on college campuses, and the racial problems existing in many communities throughout our nation, it was agreed that an analytical study of graduates (those receiving degrees or certificates) representing selected ethnic groups would make a contribution to both college and community.

The study was conducted with the approval of Mr. Charles W. Patrick, Associate Superintendent in charge of the Community Colleges in San Diego.

The Population

The population for this study was 921 graduating students in the three San Diego Community Colleges who completed either associate in arts or science degrees, or certificates of proficiency in June, 1968. Of this total, 81 students were in minority groups.

Table 2 shows the number of male and female graduates (those students receiving degrees or certificates) by colleges.

TABLE 2

MALE AND FEMALE GRADUATES BY COLLEGE

Sex	Mesa College				City College				Evening College			
	A.A.	A.S.	Cert.	Total	A.A.	A.S.	Cert.	Total	A.A.	A.S.	Cert.	Total
Male	121	20	9	150	111	63	31	205	61	54	48	163
Female	119	50	107	276	55	6	14	75	26	4	22	52
Total	240	70	116	426	166	69	45	280	87	58	70	215

Striking dissimilarities were evident among the colleges. At Mesa College, 65 percent of the graduates were female versus approximately 25 percent at San Diego City and San Diego Evening Colleges.

Of these graduates, 92 percent earning certificates at Mesa College were female, whereas only 31 percent at San Diego City and San Diego Evening Colleges earned certificates.

More than twice as many males received A.S. degrees as did females. Approximately 56 percent of the population were males. These, and other differences evident in Table 2, show that the population at each college is distinctly different as indicated by the graduates.

Table 3 shows the number and percent of graduates at each of the three colleges.

Mesa College accounted for almost half of the 921 graduates. San Diego City College and San Diego Evening College had approximately 54 percent of the graduates.

Each of the San Diego Community Colleges is organized into three divisions. Table 4, page 102, shows the distribution of the study sample by division.

Almost one-fourth of the students completed programs in the Business Division. The balance of the students were equally divided between the Arts and Sciences and Technical Divisions.

TABLE 3

NUMBER AND PERCENTAGE OF GRADUATES

FROM EACH COLLEGE

College	No. of Graduates	% of Graduates
Mesa	426	46.3
City	280	30.4
Evening	215	23.3
Total	921	100.0

TABLE 4

NUMBER OF GRADUATES BY DIVISION

Division	No. of Students	% of Sample
Arts & Sciences	252	38.1
Business	158	23.9
Technical	251	38.0
Total	661	100.0

Study Sample

Of the 921 names on the June, 1968 graduation list, twenty were duplicate names. This is explained by the fact that twenty students received both a degree and a Certificate of Proficiency. The term "graduate" is used to describe a studemt completing either a degree or certificate program. Only 901 individual students completed programs.

Lack of name cards, or inaccurate mailing addresses in the college records, eliminated 89 of the 901 students from the study. The remaining 812 students were asked to participate in the study be returning the completed questionnaire that was mailed to them. Replies were received from 661 (81.4 percent) of the students; they comprised the study sample for this investigation.

Of the 661 students in the study sample, 379 were male and 282 were female. Table 5 shows the marital status of males and females in the sample.

TABLE 5

MARITAL STATUS OF STUDENTS IN STUDY SAMPLE

Sex	Married	Single	Total
Male	180	199	379
Female	91	191	282
Total	271	390	661

A much greater proportion of male students were married. The single students were almost equally divided by sex. Fifty-nine percent of the students in the study sample were single.

Ages were available for 657 of the 661 in the sample. Table 6 shows the students divided into four age groups, and gives the number of students in each group.

TABLE 6

AGES OF STUDENTS IN STUDY SAMPLE

Age Group	18-24	25-34	35-44	45-65	Unavail-able	Total
No. of Students	290	190	88	89	4	661
Percentage of Study Sample	43.9	28.7	13.3	13.5	.6	100.0

Most of the students in the study sample (43.9 percent) were in the 18-24 age group. However, one-fourth of the students in the study sample were over 35 years of age. The mean age for the total sample was 30.2 years.

Study Groups

To answer the questions proposed in this investigation, the students in the study sample were divided into four ethnic groups. The ethnic background was not obtainable for forty-four summer school students. Ethnic

classification was available for 617 of the respondents in the sample. Table 7 shows the number of students in each ethnic group.

TABLE 7

NUMBER OF STUDENTS IN ETHNIC GROUPS

	Mexican-American	Black	Other Minorities	White	Total
No. of Students	43	30	8	536	617
Percentage of Available Sample	7.0	4.9	1.3	86.8	100.0

About 13 percent of the students in the study sample could be classified as minority students.

Table 8 pictures the ethnic groups according to marital status.

TABLE 8

MARITAL STATUS OF ETHNIC GROUPS

Status	Mexican-American	Black	Other Minorities	White	Total
Married	19	13	3	224	259
Single	24	17	5	312	358
Total	43	30	8	536	617

In all four ethnic groups over half of the students were single. The proportion of single students was approximately the same for all ethnic groups.

Table 9 shows the number of students in each ethnic group by age brackets.

Half of the black group, and about 56 percent of the Mexican-American group were in the 18-24 age bracket. Slightly less than half of the white group were 18-24 years of age. Approximately 80 percent of the students in the Mexican-American and black groups were under 35 years of age. About 73 percent of the white, and 76 percent of the other minorities were under 35.

The ethnic groups are shown by division in Table 10, page 108.

The Mexican-American and black students were fairly evenly divided among the divisions. The majority of the other minority students (Oriental, Indian, and like races) were in the Business Division. Slightly less than one-fourth of the white students were in the Business Division. The remaining white students were almost equally divided between the Technical Division and the Arts and Science Division.

Table 11, page 109, shows each ethnic group on the basis of unit load.

TABLE 9

ETHNIC GROUPS BY AGE

Age	Mexican-American	Black	Other Minorities	White	Total
18-24	24	15	3	246	288
25-34	11	9	3	143	166
35-44	5	2	0	87	94
45-65	3	4	2	60	69
Total	43	30	8	536	617

TABLE 10

ETHNIC GROUPS BY COLLEGE DIVISION

Division	Mexican-American	Black	Other Minorities	White	Total
Arts & Science	14	9	2	201	226
Business	12	11	5	123	151
Technical	17	10	1	212	240
Total	43	30	8	536	617

TABLE 11

ETHNIC GROUPS BY UNIT LOAD

	Mexican-American		Black		Other Minorities		White		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
12 Units or more	18	41.9	9	30.0	4	50.0	238	44.4	269	43.6
Under 12 units	25	58.1	21	70.0	4	50.0	298	55.6	348	56.4

Data Gathering Procedure

Rummel supports the questionnaire method of obtaining data for educational research in the following comments:

> The correspondence method of collecting information and data consists of the use of personal letters and questionnaires. Its legitimate use is limited either to opinions or preferences and facts which are known to the individual answering it. As long as the respondent's opinions are with respect to his preferences, they may be quite valid, but opinions about facts are utterly worthless unless these opinions are, themselves, the focus of the research. However, facts may be elicited in many situations, and for many purposes, by the proper construction and use of the questionnaire method. The primary uses of this method are in making status studies of current practices and in making opinion polls or attitude studies.[1]

Van Dalen, in discussing the questionnaire as an instrument that is widely used by educational workers to obtain facts about current conditions and practices, and to make inquiries concerning attitudes and opinions, had this to say:

> For some studies or certain phases of them, it may be the only practical device available for presenting respondents with carefully selected and ordered stimuli that will elicit the data required to confirm or disconfirm a hypothesis.
>
> Isolating and precisely identifying specific items for respondents to consider in a questionnaire tends to objectify, intensify, and standardize

---

[1]Frances J. Rummel. An Introduction to Research Procedures in Education (New York: Harper and Brothers, 1958), p. 87.

> their observations. . . . Thus, while the questionnaire is a useful method of acquiring data, it is not an "all purpose" tool for cutting through to the truth. Moreover, it must be handled adroitly to obtain reliable data.[2]

Recognizing the disadvantages and limitations pointed out in the literature, the method of obtaining data through the use of the questionnaire seemed most appropriate in dealing with the problem in this study.

Approximately two weeks after the close of the 1968 spring semester, a questionnaire with a cover letter (Appendix A) was mailed to the students receiving a degree or Certificate of Proficiency, to determine their employment status, name and address of employer, job title, salary, number of hours worked each week, and attitudes toward the community college.

The names of twenty students on the graduation list of 921 were duplicates, indicating they had received both a degree and a Certificate of Proficiency. Because of inadequate or incorrect mailing addresses and lack of name cards in the file on some graduates, 89 of the students could not be contacted. The questionnaire was mailed to 812 students. Replies were received from 661 students for an 81.4 percent return.

The same questionnaire was sent each month for three months to those students who did not respond and to those students who were not employed but actively seeking employment. Only the first five questions were to be completed by unemployed students actively seeking employment who responded to the original questionnaire. It was assumed

---

[2]Deobold B. Van Dalen. Understanding Educational Research (New York: McGraw-Hill Book Company, Inc., 1962) p. 254.

that responses to this first questionnaire would reflect student attitudes influenced by their college experiences. Attitudinal responses were collected by means of a Likert scale included in the questionnaire (see Appendix A).

The final letter and questionnaire (Appendix B) were mailed in June, 1969, to all who responded to any of the first four questionnaires. For the convenience of the respondent, a stamped-return envelope was included in all mailings. Of the 661 students to whom the final letter and questionnaire were sent, 370 (56.0 percent) responded. The follow-up questionnaire sent approximately one year after the original questionnaire, was designed to reflect job changes, persistence ratios, and changes in attitudes that could be attributed to community influence.

After reviewing the writings of such authors as Osgood, Suci, Tannenbaum, Ogden, and Richards, the semantic differential appeared to be the best structure to use in determining attitudes. Solomon has this to say about the semantic differential:

> Different kinds of meanings are indicated by different kinds of scales. Different amounts of meaning are indicated by where on the scale a person places his response. The logic or the semantic differential is essentially this: It is assumed that when a person judges a concept or describes an object or event, he places that event on a continuum defined by a pair of polar terms (such as good-bad, strong-weak, etc.). It is further assumed than many different continua can be used to define a "semantic space" within which

> the meaning of any concept can be specified, so long as this limited number represents all of the basic ways in which meaning may vary.[3]

A punched card was prepared for each student with the background information obtainable from the permanent record of the student. A code number assigned to each item of information on the questionnaire made possible the transfer of all information to the punched card as the questionnaires were returned.

Method of Analysis

The hypotheses are restated in null form for statistical purposes.

1a. There are no significant differences between ethnic groups in the rate of employment.

1b. There are no significant differences between ethnic groups in the rate of employment of graduates in jobs related to the college programs completed.

1c. There are no significant differences between ethnic groups in the number of employed students who changed jobs during the year immediately following the close of the 1967-68 school year.

1d. There are no significant differences between ethnic groups in the mean beginning wage.

2. There are no significant attitudinal differences between ethnic groups toward the school experience as indicated by the Likert scale on the initial questionnaire.

---

[3]Lawrence N. Solomon. The Semantic Differential: Past, Present, and Future (La Jolla, California: Western Behavioral Sciences Institute, 1961), p. 9.

3. There are no significant attitudinal differences between ethnic groups toward the school experiences as indicated by the semantic differential on the final questionnaire.

Hypotheses 1a, 1b, 1c, 2, and 3 were tested for statistically significant differences by means of a Chi square test using Yates[4] correction for small samples.

The F test was used in hypothesis 1d to test for statistically significant differences in the mean beginning salaries for the ethnic groups. One-way analyses of variance was conducted using the Biomedical Computer Program[5] BMDOIV on the initial questionnaire.

In hypothesis 1a, the proportions used in the significance tests were formed by comparing the students who were working full-time (over 20 hours) to the total number of students who were actively seeking employment.

In hypothesis 1b, the proportions used to test for significant differences were formed by comparing those students who were employed full-time (over 20 hours) in a job related to their college program to the total number of students who were employed full-time.

---

[4]George A. Ferguson. Statistical Analysis in Psychology and Education (2nd ed.; New York: McGraw-Hill Book Company, 1966), pp. 206-208.

[5]W. J. Dixon. Biomedical Computer Programs (2nd ed.; Berkeley, California: University of California Press, 1967), p. 486.

The proportions used to test for significant differences in hypothesis 1c were formed by comparing the number of students who changed employers at least once, as indicated on the final questionnaire, to the total number of students who were employed full-time.

For hypothesis 2, students who responded good or very good to question six on the initial questionnaire were defined as having a positive attitude toward the area in question. Students who placed a check in the poor or very poor box were defined as having a negative attitude. Those marking the adequate box were defined as having a neutral attitude (neither favorable nor unfavorable to the area in question).

A similar procedure was applied to the semantic differential on the final questionnaire for tests of hypothesis 3.

CHAPTER IV

ANALYSIS AND INTERPRETATION OF THE DATA

Chapter IV includes a presentation, analysis, and interpretation of the data relative to each hypothesis.

Hypotheses

Hypothesis 1a

There are no significant differences between ethnic groups in the rate of employment.

Hypothesis 1b

There are no significant differences between ethnic groups in the rate of employment of graduates in jobs related to the college programs completed.

Hypothesis 1c

There are no significant differences between ethnic groups in the number of employed students who changed jobs during the year immediately following the close of the 1967-68 school year.

The numbers of students used for testing the statistical significant differences for hypotheses 1a, 1b, and 1c, are presented in Tables 12, 13, and 14. Equivalent percent values are also included.

TABLE 12

EMPLOYMENT STATUS

Ethnic Group	Employed Full Time (Over 20 hours weekly)		Not Employed Full Time And Actively Seeking Employment	
	No.	%	No.	%
Mexican-American	30	96.8	1	3.2
Black	22	91.7	2	8.3
Other Minorities	5	100.0	0	0.0
(Subtotal all minorities	(57)	(95.0)	(3)	(5.0)
White	350	92.3	29	7.7
Total	407	92.7	32	7.3

TABLE 13

EMPLOYMENT STATUS IN JOBS RELATED TO

THE COLLEGE PROGRAM COMPLETED

Ethnic Group	Employed Full Time in A Related Job		Employed Full Time in Unrelated Job	
	No.	%	No.	%
Mexican-American	20	66.7	10	33.3
Black	14	66.7	7	33.3
Other Minorities	2	40.0	3	60.0
(Subtotal all minorities)	(36)	(64.3)	(20)	(35.7)
White	217	63.8	123	36.2
Total	253	63.9	143	36.1

TABLE 14

JOB PERSISTENCE LEVEL FOR FIRST YEAR OF EMPLOYMENT

Ethnic Group	Employed Full Time: Same Job During First Year		Changed Job During First Year	
	No.	%	No.	%
Mexican-American	6	85.7	1	14.3
Black	6	85.7	1	14.3
Other Minorities	2	66.7	1	33.3
(Subtotal all minorities)	(14)	(88.9)	(3)	(11.1)
White	121	84.0	23	16.0
Total	135	83.9	26	16.1

Results of Chi square tests applied to hypotheses 1a, 1b, and 1c are shown in Table 15.

Additional tests were also applied to differences between the individual ethnic groups when expected frequencies indicated that use of the Chi square tests were valid.

Conclusion.--There were no statistically significant differences between either minority and nonminority groups, or between individual ethnic groups in the rate of employment, the rate of employment in jobs related to the college programs completed, or the number of students who changed jobs during the first year of employment. Employment practices of the community did not evidence differential treatment of ethnic groups.

Hypothesis 1d

There are no significant differences between ethnic groups in mean beginning salaries.

Table 16 contains the number of students used in the significance test for hypothesis 1d. Also included are the mean salaries, standard deviation, and standard error of the means. Table 17, page 123, shows the results of the analysis of variance.

TABLE 15

CHI SQUARE VALUES FOR HYPOTHESES

1a, 1b, AND 1c

	Hypothesis 1a Full time Employment	Hypothesis 1b Related Employment	Hypothesis 1c Changed Jobs
Minority (a)	95.0%	64.3%	35.7%
Nonminority (b)	92.3%	63.8%	36.2%
Difference (a - b)	2.7%	0.5%	0.5%
Chi Square	.22	.00	.02

Chi square required for .05 level of significance is 3.84.

TABLE 16

BEGINNING WEEKLY SALARIES

INDIVIDUAL ETHNIC GROUPS

	Mexican-American	Black	Other Minorities	White
Sample Size	27	21	5	197
Mean	120.22	111.95	80.80	122.06
Standard Deviation	60.88	42.49	21.92	56.28
Standard Error of Mean	1.97	2.63	3.69	2.17

TABLE 17

ANALYSIS OF VARIANCE BEGINNING

WEEKLY SALARIES

	Sum of Squares	DF	Mean Square	F Ratio*
Between Groups	9872.4759	3	3290.8253	1.07
Within Groups	755275.6881	246	3070.2264	
Total	765148.1641	249		

*$F_{.95}$ (3,246) > 2.64

An additional significance test was used comparing all minority students to nonminority students. The analysis is described in Tables 18 and 19.

Conclusion.--There were no statistically significant differences in beginning salaries either between minority and nonminority groups or between individual ethnic groups. The entry-level salaries did not indicate that the employers made any distinction between ethnic groups.

Hypothesis 2

There were no significant attitudinal differences between ethnic groups toward the school experiences as indicated by the Likert scale on the initial questionnaire.

TABLE 18

BEGINNING WEEKLY SALARIES

(Minority, Nonminority)

	Minority	Nonminority
Sample Size	53	197
Mean	113.23	112.06
Standard Deviation	52.07	56.28
Standard Error of Mean	2.17	2.17

TABLE 19

ANALYSIS OF VARIANCE BEGINNING WEEKLY SALARIES

(Minority, Nonminority)

	Sum of Squares	DF	Mean Square	F Ratio*
Between Groups	3259.6119	1	3259.6119	1.06
Within Groups	761888.5521	248	3072.1313	
Total	765148.1640			

*$F_{.95}$ (1,248) > 2.64

Table 20 indicates the positive responses of individual ethnic groups for each of the five categories: courses, instruction, instructors, counselors, and college atmosphere, as well as the composite (mean positive responses for all five categories). Table 21, page 127, shows the results of the Chi square tests for statistically significant differences between ethnic groups.

Although attitudinal responses between ethnic groups were not statistically different (.05 level), Table 20 clearly indicates that all of the San Diego County Community College graduates thought much more highly of courses, instruction, and instructors than they did of the counselors and the college atmosphere.

Conclusion.--There were no statistically significant attitudinal differences on the initial questionnaire between either minority or nonminority groups or between individual ethnic groups. There was no evidence to indicate that the ethnic groups differed in attitudes toward their college experiences.

Hypothesis 3

There are no significant attitudinal differences between ethnic groups toward the school experiences as indicated by the semantic differential on the final questionnaire.

TABLE 20

POSITIVE ATTITUDINAL RESPONSES

INITIAL QUESTIONNAIRE

Category	Mexican-American		Black		Other Minorities		White		All Minorities	
	No.	%	No.	%	No.	%	No.	%	No.	%
Courses	35	83.3	22	73.3	3	[illegible].9	367	71.4	60	75.9
Instruction	31	73.8	21	70.0	5	71.4	344	71.2	57	72.2
Instructors	34	82.9	24	88.9	7	87.5	369	78.2	65	85.5
Counselors	17	40.2	12	40.0	4	50.0	213	44.7	33	41.3
College Atmosphere	21	48.8	17	56.7	3	37.5	212	42.1	41	50.6
Composite*	23	66.7	19	65.5	4	57.1	301	61.4	51	65.4

*Mean of the total positive responses for the five categories.

TABLE 21

CHI SQUARE TESTS--POSITIVE ATTITUDES

INITIAL QUESTIONNAIRE

Groups Compared*		Chi Square Values**					
		Courses	Instruction	Instructor	Counselors	College Atmosphere	Composite
M-A	B	.01	.01	.10	.00	.43	.02
M-A	O	***	***	***	.01	.04	.00
M-A	W	.01	.13	.26	.29	.72	.00
B	O	***	.15	***	.01	.32	.00
B	W	.42	.00	1.17	.26	2.44	.19
O	W	***	.17	***	.00	1.29	.03
Min.	Nonmin.	1.17	.03	2.15	.34	2.04	.45

*M-A = Mexican-American
B = Black
O = Other Minorities
W = White

**Chi square value required for .05 level of significance is 3.84.

***Expected frequencies too low for valid use of Chi square test.

Table 22 shows the positive responses of each ethnic group for each of the five categories: courses, instruction, instructors, counselors, and college atmosphere, as well as the composite (mean positive responses for all five categories). Table 23, page 130, gives the results of the Chi square tests for statistically significant differences between ethnic groups.

An interesting attitudinal change developed during the time lapse between the initial and the final questionnaires. Immediately after graduation, the students reported a relatively low percentage of positive responses toward both counselors and college atmosphere. Many students initially gave no response regarding their attitude toward counselors. One year later, however, the low positive response had disappeared and the positive attitude for counselors and college atmosphere was nearly equal to courses, instruction, and instructors.

While the attitudes toward certain aspects of their college experiences changed one year after graduation, there was no evidence to indicate any differences among the ethnic groups.

Conclusion.--There were no statistically significant attitudinal differences on the final questionnaire between minority and nonminority groups or between individual ethnic groups toward courses, instruction, instructors, counselors, and college atmosphere.

TABLE 22

POSITIVE ATTITUDINAL RESPONSES

FINAL QUESTIONNAIRE

Category	Mexican-American		Black		Other Minorities		White		All Minorities	
	No.	%	No.	%	No.	%	No.	%	No.	%
Courses	12	70.6	11	78.6	2	100.0	182	66.4	25	75.8
Instruction	15	93.8	12	80.0	3	100.0	196	71.8	30	88.2
Instructors	14	82.4	12	85.7	3	100.0	227	83.2	29	85.3
Counselors	7	58.3	10	76.9	2	66.7	146	59.1	19	67.9
College Atmosphere	12	75.0	11	78.6	3	100.0	187	68.5	26	78.8
Composite*	12	80.0	11	78.6	2	100.0	187	70.3	25	80.6

*Mean of the total positive responses for the five categories.

TABLE 23

CHI SQUARE TESTS--POSITIVE ATTITUDES

FINAL QUESTIONNAIRE

Groups Compared*		Chi Square Values**				
	Courses	Instruction	Instructor	Counselors	College Atmosphere	Composite
M-A	B	.01	***	.06	.32	.04	.13
M-A	O	***	***	***	***	***	***
M-A	W	.01	2.67	.06	.06	.07	.26
B	O	***	***	***	***	***	***
B	W	.42	.16	.01	.98	.25	.13
O	W	***	***	***	***	***	***
Min.	Nonmin.	1.17	3.40	.01	.80	1.47	.99

*M-A = Mexican-American
B = Black
O - Other Minorities
W = White

**Chi square value required for .05 level of significance is 3.84.

***Expected frequencies too low for valid use of Chi square test.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purposes of this study were to determine whether the perceptions, attitudes, and other characteristics such as age, marital status, and unit load of minority groups relative to their community college experiences differed from those of nonminority groups. The study also sought to determine if the employment practices of the community evidenced differential treatment of minority groups who completed a community college program.

San Diego Community College students who completed either Associate in Arts or Science degrees or Certificates of Proficiency in June, 1968, comprised the population for the study. Students were divided into four ethnic groups in order to answer the questions proposed in this investigation. The numbers of students in each ethnic group were: Mexican-American, 43; black, 30; other minorities, 8; and white, 536.

The questionnaire method was used to obtain data. Immediately upon completion of their community college program, 812 students were asked to participate in the

study. Over 81 percent of the population responded to the initial instrument. A follow-up questionnaire was sent one year later to those who initially responded; the return rate was 56 percent.

Findings And Conclusions

The questionnaire responses were utilized as measures of the hypotheses. While popular expression today would predict nonvalidation of the hypotheses, the study clearly indicates that the null hypotheses could not be rejected. There were no significant differences as measured by the responses of the various ethnic group graduates themselves.

The following conclusions were suggested from the responses reported by the San Diego Community College graduates who participated in the study.

1. There were no differences in employment rates between ethnic groups. The employment practices of the community do not indicate differential treatment of minority college graduates.

2. The San Diego Community College graduates in the vast majority of cases were employed in jobs related to their collegiate programs. The literature also revealed that community college students are usually employed in jobs related to their education. However, this study shows that these findings are also true for individual ethnic

groups. The writer considers this especially significant in light of the current unrest evidenced by minority groups.

3. Minority students show the same job persistence as nonminority students. There were no statistically significant differences in the number of job changes during the first year.

4. The beginning weekly salaries for each ethnic group were not significantly different. Employers are apparently willing to pay an equal wage for an equivalent job, irrespective of ethnic origin.

5. Minority graduates had the same perceptions and attitudes toward their college experiences as nonminority graduates. The review of the literature indicated similar findings in that community college students generally have favorable attitudes toward their college programs.

There are other findings incidental to the questions investigated in this study which are believed to have important implications.

1. Of the community college graduates in this study, approximately 13 percent were minority students (Table 7, page 105); yet 26 percent of the K-12 enrollments in the San Diego Unified School District[1] were classified in minority groups.

---

[1]San Diego Unified School District, Pupil Ethnic Census, 1969-70, San Diego, January 14, 1970, p. 2.

2. Seventy percent of the black students were enrolled in less than twelve units, which appears to be disproportionate in comparison with other ethnic groups.

3. Although the colleges were all a part of the same multi-campus district, the curricular patterns of the graduates indicated that each college was unique relative to its program emphasis and student population interests. This is particularly apparent in the number of students completing certificate program (Table 2, page 99).

4. Graduates of the San Diego Community Colleges were very successful in securing employment. Ninety-two percent were employed full time. This is a strong indication of the community support and apparent high regard for community college graduates.

Recommendations and Discussion

Based on the foregoing summary of the study and the conclusions presented, the following recommendations are made. The recommendations also take into account the incidental findings which were revealed.

1. The attitudes of the students toward the instructional program should be maintained at the high level indicated by the large proportion of positive responses.

According to the responses, the students have an apparent high regard for their courses, instruction, and especially instructors. An excellent relationship toward instructors by all minorities and nonminorities is evidenced by the more than 85 percent positive responses on the initial questionnaire. This contrasts sharply with only a 41 percent positive response rate in the counselor category.

The nonminorities evidenced the same pattern of attitudes toward instructors and counselors, but not quite to the same degree. The positive response rates by nonminorities for instructors and counselors were 78 percent and 45 percent, respectively.

2. A critical review of the present counseling program is suggested for possible improvement and better acceptance.

The relatively small percent of positive responses on the initial questionnaire indicates that the students are not immediately satisfied with the counseling function.

Minority students may be reluctant to seek the aid of counselors; however, this does not account for the similar low positive response rate in the nonminority group. Emphasis might be placed on group counseling sessions. Modest success with the group counseling

technique was found in an evaluative study of such a program at San Diego City College.[2] The minority students gave some indication that their needs were being met, and they were encouraged to persist in college.

The occupational programs of the community colleges emphasize entry-level curriculums of two years or less. Therefore, colleges should insure that all counselors thoroughly familiarize themselves with vocational opportunities and skill requirements needed to meet entry-level jobs.

Too often the counseling function does not receive adequate support. This results in inadequate counseling services and limited availability of counselors. Either support should be increased to reduce the pupil-counselor load or effective group counseling techniques should be employed.

An alternative might be to consider decreasing the instructional load per teacher and utilizing the resultant time for instructor advisement in their respective teaching fields. The above plan would be especially effective in the occupational areas.

---

[2]Otto A. Heinkel. Evaluation of a General Studies Program for the Potentially Low Academic Achiever in California Community Colleges. (San Diego: Department of Health, Education, and Welfare, Project No. 9-I-009, April, 1970), pp. 2-3.

3. To enhance the college atmosphere, an organized program should be planned to constructively involve students in the growth, development, and operation of the college.

Students should feel a part of the operation and development of their college. They should not only share in the successes but also in the possible disappointments that may occur.

A possible contributing factor to the lack of positive attitudes toward their college atmosphere could have been poor facility layout. Too often the placement of buildings and meeting places for students tend to physically fragment the student body.

Another possible area for review is suggested by comments made by respondents to the questionnaire. A number of students indicated that there was a wide discrepancy between the stated democratic student role in the college function and the actual role permitted. The comments were directed toward the areas of student government, bookstore, and overall college operation (Appendix C).

Extracurricular programs play a dominant role in affecting student attitudes toward college. Review of the types and extent of the extracurricular activities presently offered is advisable.

4. College administrators and faculty should strive for a better understanding and a clearer composite picture of the student body.

Conceptually, a community college student is a bright-eyed, eighteen-year old attending college full time and graduating with sheepskin in hand at the end of two years. The typical program is organized and classes are scheduled to accommodate a four-semester, two-year lock step toward graduation.

The student population in this study suggests a mature, thirty-year old student who may be married and who attends college only part time. The programs and class schedules for such students need to be flexible and varied. The usual extracurricular activities may not be relevant. Mature students, such as these, may also require a different type of counseling than that for which the counselor has been trained.

5. Additional follow-up studies of the total student population, nongraduates as well as graduates, need to be conducted.

The population for this study was limited to only the graduates of the San Diego Community Colleges. The author believes that the findings and conclusions might be significantly different if the unsuccessful or non-graduate students were studied. Certainly, those students

who graduated learned to adapt and survive the college experience. Thus, the study took into account only those students who had proved themselves by graduating.

Similar studies should be conducted using non-graduates, including dropouts, as subjects. These studies should give attention to possible changes in the proportion of ethnic groups. The studies should also identify where significant shifts in ethnic composition of the student body occur. Thus, programs could be developed and directed toward these specific critical periods in the college experience.

6. The college should provide relatively uninhibited access to study findings.

The complaints directed at the community college by minority groups may be invalid as evidenced by this study.

Too often the insecurity, fear, and lack of trust determine policies regarding release of information. The writer firmly believes that problems are a result of ignorance and could be avoided by a policy of relatively uninhibited access to study conclusions and other data.

Those criticisms which in the past have proved unreasonable would disappear; those criticisms which survive should be seriously considered.

7. A comprehensive public relations program should be developed.

The study shows favorable results with minorities who succeeded in college, yet there is evidence of strong unrest and dissatisfaction from minority groups as a whole.

If there is fault with the community colleges, the writer would suspect that it lies in a lack of communication. It seems that only unpleasantness is newsworthy. A concerted effort should be made to publicize the successes and honors achieved by our students and faculty.

It is strongly advised that a comprehensive public relations program be maintained to insure that a truer image of our community colleges is presented.

8. A program should be initiated to encourage minority students to enroll and maintain themselves in college.

Evidence from the study would seem to indicate that those students who completed a community college program, regardless of ethnic origin, were quite successful in securing employment and earning an equal wage.

As previously stated, 26 percent of the K-12 population in the San Diego Unified School District belong to minority groups. Yet only 13 percent of the college graduate population belong to minority groups.

Thus, there is a significant change in the population composition which must have occurred sometime between high school graduation and graduation from college. This contrasts sharply with the relatively small changes in ethnic composition that occurred during the K-12 years.

An immediate study should be conducted to determine more specifically when this latter change occurred. A compensating program must be introduced to guarantee that minority members of our community take full advantage of the educational opportunities offered through the community colleges.

Results of the study clearly indicate that the San Diego Community Colleges are generally conducting acceptable college programs. The one or two exceptions, notably in the counseling and the college atmosphere, are certainly not unique to San Diego as evidenced by the literature.

The San Diego Community Colleges are preparing graduates who are able to secure employment in a reasonable period of time. Since employment patterns of minority and nonminority groups are quite similar, it would appear that San Diego employers are supportive of minority groups who have completed a community college program.

Both the community and the colleges are to be commended for the excellent job being done as evidenced by the employment practices and the favorable student attitudes toward the instructional programs.

BIBLIOGRAPHY

BIBLIOGRAPHY

Advisory Council on Vocational Education. "Vocational Education--The Bridge Between Man and His Work," Washington, D. C.: United States Office of Health, Education, and Welfare, 1968.

Baird, Leonard L.; Richards, James M., Jr.; and Shevel, Linda R. "A Description of Graduates of Two-Year Colleges," Iowa City, Iowa: American College Testing Program, Research and Development Division, January, 1968.

Bayeer, Alan E., and Baruch, Robert F. "The Black Student in American Colleges," Washington, D. C.: American Council on Education, March, 1969.

Bogue, J. P. The Community College. New York: McGraw-Hill Book Company, Inc., 1950.

Bugg, Ralph. "When College Isn't the Answer," Today's Health, American Medical Association, (August, 1968), 42-45; 65-66.

Bureau of Census. "Fact Sheet on Nonwhite Workers." Report No. WB-67-107. Washington, D. C.: Department of Labor, October, 1966.

Bureau of Labor Statistics. America's Industrial and Occupational Manpower Requirements, 1964-1975. Washington, D. C.: Department of Labor, January, 1966.

Chamber of Commerce of the United States. "More Jobs For Negroes," Nation's Business, Vol. 55, No. 9, September, 1967, pp. 36-39.

Clark, Kenneth B. "The Search For Identity," Ebony, XXII, 10 (August, 1967), 39-42.

Committee for Economic Development. "Raising Low Incomes Through Improved Education, A Statement on National Policy," New York: Research and Policy Committee, September, 1965.

Conant, James B. "Community and School are Inseparable," Slums and Suburbs. New York: MacGraw-Hill Book Company, 1961.

Cooper, Sophia, and Johnston, Denis F. "Labor Force Projections by Color, 1970-80," Monthly Labor Review, (February, 1965). Reprinted as Special Labor Force Report No. 49.

Davidson, John E. "Junior College Terminal Graduates and Junior College Goals." Unpublished Ph.D. dissertation, State University of New York, 1968.

Department of Labor. "New Developments in Manpower Programs." (Information appears in Manpower Report of the President and Report on Manpower Requirements, Resources, Utilization, and Training, 1968), April, 1968.

Dixon, W. J. Biomedical Computer Programs. 2nd ed. Berkeley, California: University of California Press, 1967.

Eckstein, Otto. "Education, Employment, and Negro Equality." Speech presented at Seminar on Manpower Policy and Program, Washington, D. C., April 18, 1968.

"The Education Crisis," Syndrome, III, 4 (March-April, 1969), p. 9.

Education for a Changing World of Work. Washington, D. C.: United States Department of Health, Education, and Welfare, Office of Education, Government Printing Office, 1963.

Encyclopedia of Educational Research. New York: McMillan Company, 1960.

Evans, Rupert, and Brandon, George L. "Research in Vocational Education," National Society For the Study of Education, (1965), p. 265.

Ferguson, George A. Statistical Analysis in Psychology and Education. 2nd ed. New York: McGraw-Hill Book Company, 1966.

Ferman, Louis A. "The Negro and Equal Employment Opportunities, A Review of Management Experiences in Thirty Companies," Institute of Labor and Industrial Relations. Ann Arbor, Michigan: Michigan University, December, 1966.

Fields, Ralph R. The Community College Movement. New York: McGraw-Hill Book Company, Inc., 1962.

Fitcher, Joseph H. "Graduates of Predominantly Negro Colleges, Class of 1964," Washington, D. C.: Public Health Service, Department of Health Education, and Welfare, 1967.

Gleazer, Edmund J. This is the Community College. Boston: Houghton Mifflin Company, 1968.

Goodwin, Robert C. "Locating Manpower Needs," American Vocational Journal, 43, 6 (September, 1968), 16-21.

Hakanson, John W. "Selected Characteristics, Socio-economic Status, and Levels of Attainment of Students in Public Junior College Occupation-Centered Education." Berkeley, California: University of California, 1967.

Hamel, Harvey R. "Job Tenure of Workers," Monthly Labor Review (January, 1967), 25.

Harris, Norman C. "The Community Junior College--A Solution to the Skilled Manpower Problem," Higher Education in an Age of Revolution. Edited by G. Kerry Smith. Washington, D. C.: Association for Higher Education, 1962.

Hayle, Kathryn D. "Why the Unemployed Looked for Work," Monthly Labor Review (January, 1967), 11.

Heinkel, Otto A. Evaluation of a General Studies Program for the Potentially Low Academic Achiever in California Community Colleges. San Diego: United States Department of Health, Education, and Welfare, Project No. 9-I-009, April, 1970.

Herman, Melvin, and Sadofsky, Stanley. Study of the Meaning, Experience, and Effects of the Neighborhood Youth Corps on Negro Youth Who are Seeking Work. Part II. A Follow-Up Study of Work-Seeking Negro Young Men Who are Not Placed in Jobs by Intake Centers. New York: Graduate School of Social Work, New York University, 1967.

Huson, Carolyn F., and Schiltz, Michael E. "College, Color, and Employment--Racial Differentials in Postgraduate Employment Among 1964 Graduates of Louisiana Colleges," National Opinion Research Center. Chicago: Chicago University, July, 1966.

Johnson, Charles E., Jr. "What You Should Know About Current Population Trends," American Vocational Journal, 43, 8 (November, 1968), 25-27.

Kapel, David E. "Effects of Negro Density on Student Variables and the Post-High School Adjustment of Male Negroes," Project Talent, Five-Year Follow up Studies Interim Report 6. Washington, D. C.: Office of Education, Bureau of Research, 1968.

Kratz, Joseph, and Korm, Harold A. "The Graduates--Did They Find What They Needed?" American Education, (May, 1968), 5-8.

Kuvlesky, William P. "Status Profections and Ethnicity: A Comparison of Mexican-American, Negro, and Anglo Youth." Paper presented at the annual meetings of the Southwestern Sociological Association, New Orleans, Louisiana, April, 1969.

Levitan, Sar. A. Vocational Education and Federal Policy. Kalamazoo, Michigan: Upjohn Institute for Employment Research, 1963.

Littig, Lawrence W. "A Pilot Study of Personality Factors Related to Occupational Aspirations of Negro College Students." Report No. BR-5-1021. Washington, D. C., 1966.

McGraw-Hill Study. "Ghetto Disadvantaged Need Right Kind of Training," American Vocational Journal, 43, 3 (March, 1968), 12.

McLure, John A. "A Study of Educational Activities Within Business and Industry in Richmond, California," Berkeley: University of California, Department of Health, Education, and Welfare Report, September, 1967.

Manpower Research Council. "Automation." Milwaukee, Wisconsin: Report No. MRC-RR-2, November, 1964.

Marsee, Stuart E. "Who Needs the Community College?" Junior College Journal, 39 (September, 1968), 9.

Marshall, Ray F., and Briggs, Vernon M., Jr. "Negro Participation in Apprenticeship Programs," Texas University, Manpower Administration. Washington, D. C., 1966.

Martorna, S. V. "Let's Broaden the Theme," An Address Presented at State University of New York, 1965. Summer Conference for Two-Year Colleges. Cobleskill, New York: Agricultural and Technical College, 1965.

Matthews, Harold A. "Tomorrow is Now," American Education, June, 1967, pp. 21-22.

Matthews, Robert G., and Drabick, Lawrence W. Reasons for Selection of Expected Occupations--By Race and Sex. Raleigh, North Carolina: North Carolina University, 1965.

Medsker, Leland L. The Junior College, Progress and Prospect. New York: McGraw-Hill Book Company, Inc., 1960.

Morse, Wayne. "Education for Jobs in A Technological Society," Speech presented at the Annual Vocational Convention of the American Vocational Association 62nd. Dallas, December 10, 1968. Document No. VT 008216, December, 1968.

O'Connor, Thomas J. "Follow-up Studies in Junior Colleges; A Tool For Institutional Improvement," American Association of Junior Colleges, Document No. VT 001 271, Washington, D. C.: U. S. Office of Education, 1965.

Office of Education. "Equality of Educational Opportunity--Summary." Report No. OE-3800. Washington, D. C.: Department of Health, Education, and Welfare, 1966.

Pearse, Benjamin H. "Business, Industry, and Education Inc." American Education, November, 1968, pp. 13-15.

President's Committee on Youth Employment. "Reports of Subcommittees of the President's Committee on Youth Employment." Washington, D. C., June, 1963.

President's Manpower Report, 1965. Washington, D. C.: Government Printing Office, 1965.

Renick, Evanell K. "A Follow-up Study of Secretarial and Clerical Business Students at Palomar College." Unpublished Master's thesis, San Diego State College, 1964.

Rummel, Frances J. An Introduction to Research Procedures in Education. New York: Harper and Brothers, 1958.

Ryscavage, Paul M. "Changes in Occupational Employment Over the Past Decade," Monthly Labor Review, 90, 8 (August, 1967), 6.

San Diego Unified School District. Pupil Ethnic Census. San Diego: San Diego Unified School District, 1970.

Schultz, Raymond E. "A Follow-Up on Honor Students," Junior College Journal, 38, 4 (January, 1968), 9-15.

Schwarz, Terry E., and Stern, Virginia. "Education of the Deprived and Segregated," Seminar on Education for Culturally Different Youth, conducted by Bank Street College of Education, New York, 1965.

Schweitzer, S. O. "New Evidence on Problems of Re-employment," Monthly Labor Review, 90, 8 (August, 1967), 5.

Sharp, Laure M., and Krasnegor, Rebecca. "The Use of Follow-Up Studies in the Evaluation of Vocational Education." Document No. ED 010 072. Washington, D. C.: Bureau of Social Science Research, Inc., 1966.

Sherer, Harry. "Antecedent Conditions and Academic Achievement of Ethnically Different Students in Junior College." Unpublished Ph.D. dissertation, University of California, Los Angeles, 1967.

Smith, D. B. Report on Differences in Ethnic Learning Styles. New York: Educational Design Inc., 1966.

Solomon, Lawrence N. The Semantic Differential: Past, Present, and Future. La Jolla, California: Western Behavioral Sciences Institute, 1961.

Stewart, Lawrence H. "Characteristics of Junior College Students in Occupationally Oriented Curricula," Journal of Counseling Psychology, 13, 1 (1966), 46-52.

Stringer, Herbert E. "Training in the Perspective of Technological Change." Seminar on Manpower Policy and Program, Washington, D. C., January, 1966.

Swanson, Chester J. "Can We Carry Out the 1963 Mandate for A Total Program?" American Vocational Journal, 43, 6 (September, 1968), 29-30.

Task Force on Vocational-Technical Education of the Education Commission of the United States. "Changing the Context in Which Occupational Education Takes Place," American Vocational Journal, 43, 3 (March, 1968), 59.

Van Dalen, Deobold B. Understanding Educational Research. New York: McGraw-Hill Book Company, Inc., 1962.

Vander Werf, Lester S. "Needed Research in Vocational Education," Phi Delta Kappan, XLVI (April, 1965), 407.

Wetzel, James R., and Holland, Susan B. "Poverty Areas of Our Major Cities," Monthly Labor Review, (October, 1966), p. 10.

Wolfbein, Seymour L. "Automation and Skill," Annals of the American Academy of Political and Social Science, (March, 1962), 57.

Wolfle, Dael. America's Resources of Specialized Talent. New York: Harper & Brothers, 1954.

Women's Bureau. "Fact Sheet on Women in Professional and Technical Positions." Washington, D. C.: Department of Labor Report No. WB-67-164, 1966.

APPENDIX A

INITIAL LETTER AND QUESTIONNAIRE

SAN DIEGO CITY SCHOOLS
SAN DIEGO JUNIOR COLLEGES
835 TWELFTH AVENUE
SAN DIEGO, CALIFORNIA 92101

July 1, 1968

Dear Former Student:

Will you please assist us by filling out the enclosed questionnaire?

We value your opinions and believe that the information you give will help us do a better job of meeting the needs of future students and of the community.

Your answers will be kept completely confidential and will be used only for statistical purposes.

It would be appreciated if we could receive your reply by July 8.

Sincerely,

Otto A. Heinkel

Otto A. Heinkel
Coordinator of Research

OH:et:h

NAME _____ MAIDEN NAME _____
Last First Initial

ADDRESS _____ PHONE NO. _____

1. Are you continuing your education? yes ☐ no ☐

2. If you are continuing your education, please indicate the name of the institution _____

3. Are you employed? yes ☐ no ☐

4. If not, are you actively seeking employment? yes ☐ no ☐

5. If you are employed, please complete the following:

Employer's name _____

Address _____

Phone No. _____

Your job title _____ Approximate hours per week _____

Date of employment _____ Approximate weekly salary _____

6. Please mark an X in the box that best represents your judgment in each of the following categories:

	very good	good	adequate	poor	very poor
COURSES (Did they prepare you for your intended goal?)					
INSTRUCTION (Was it clear? Stimulating? Interesting?)					
INSTRUCTORS (Were they knowledgeable? Understanding? Helpful?)					
COUNSELORS (Were they readily available? Sympathetic? Helpful?)					
COLLEGE ATMOSPHERE (Did it provide a sense of friendliness? Belonging?)					

7. Additional Comments: (Use back of sheet if needed)

APPENDIX B

FINAL LETTER AND QUESTIONNAIRE

SAN DIEGO CITY SCHOOLS
SAN DIEGO COMMUNITY COLLEGES
835 TWELFTH AVENUE
SAN DIEGO, CALIFORNIA 92101

OFFICE OF THE ASSOCIATE SUPERINTENDENT

SAN DIEGO CITY COLLEGE
SAN DIEGO MESA COLLEGE
SAN DIEGO EVENING COLLEGE
SAN DIEGO ADULT SCHOOLS

June 1, 1969

Dear Former Student:

Almost a year ago you answered a questionnaire asking for certain information, as well as your opinions about the San Diego Community Colleges. Your responses are included in the report which we are preparing for the colleges. The report will significantly help your college improve and continue to offer the best education possible.

Now, almost a year later, we again ask you to fill out the enclosed questionnaire and return it as soon as possible. This will complete the study and enable us to write the report with recommendations to the college. This final questionnaire will reflect your judgment after you have had a chance to use those skills which you acquired through our college.

Thank you again for your assistance in this important project.

Sincerely,

Otto A. Heinkel

Otto A. Heinkel
Coordinator of Research

OH:et
Enclosure

NAME_____ MAIDEN NAME_____
LAST FIRST INITIAL

ADDRESS_____ PHONE NO_____

1. ARE YOU PRESENTLY ENROLLED IN COLLEGE OR OTHER TYPE OF SCHOOL? YES ☐ NO ☐

2. IF YOU ARE CONTINUING YOUR EDUCATION, PLEASE INDICATE THE NAME OF THE INSTITUTION:_____

3. ARE YOU EMPLOYED? YES ☐ NO ☐

4. IF NOT, ARE YOU ACTIVELY SEEKING EMPLOYMENT? YES ☐ NO ☐

5. IF YOU ARE EMPLOYED, PLEASE COMPLETE THE FOLLOWING:

EMPLOYER'S NAME_____

ADDRESS_____ PHONE NO_____

YOUR JOB TITLE_____ APPROXIMATE HOURS PER WEEK_____

DATE OF EMPLOYMENT_____ APPROXIMATE WEEKLY SALARY_____

6. PLEASE PLACE AN X IN THE BOX THAT BEST REPRESENTS YOUR PRESENT FEELINGS ABOUT THE FOLLOWING CATEGORIES IN YOUR JUNIOR COLLEGE PROGRAM:

COURSES

USEFUL:_____:_____:_____:_____:_____:_____:_____:USELESS

INTERESTING:_____:_____:_____:_____:_____:_____:_____:UNINTERESTING

EASY:_____:_____:_____:_____:_____:_____:_____:DIFFICULT

INSTRUCTION

GOOD:_____:_____:_____:_____:_____:_____:_____:BAD

CLEAR:_____:_____:_____:_____:_____:_____:_____:UNCLEAR

STIMULATING:_____:_____:_____:_____:_____:_____:_____:BORING

RELEVANT:_____:_____:_____:_____:_____:_____:_____:IRRELEVANT

INSTRUCTORS

FRIENDLY:_____:_____:_____:_____:_____:_____:_____:UNFRIENDLY

HELPFUL:_____:_____:_____:_____:_____:_____:_____:UNHELPFUL

KNOWLEDGEABLE:_____:_____:_____:_____:_____:_____:_____:UNINFORMED

PERSONAL:_____:_____:_____:_____:_____:_____:_____:IMPERSONAL

GOOD:_____:_____:_____:_____:_____:_____:_____:BAD

COUNSELORS

PERSONAL:_____:_____:_____:_____:_____:_____:_____:IMPERSONAL

FRIENDLY:_____:_____:_____:_____:_____:_____:_____:UNFRIENDLY

HELPFUL:_____:_____:_____:_____:_____:_____:_____:UNHELPFUL

KNOWLEDGEABLE:_____:_____:_____:_____:_____:_____:_____:UNINFORMED

AVAILABLE:_____:_____:_____:_____:_____:_____:_____:UNAVAILABLE

COLLEGE ATMOSPHERE

PLEASANT:_____:_____:_____:_____:_____:_____:_____:UNPLEASANT

FRIENDLY:_____:_____:_____:_____:_____:_____:_____:UNFRIENDLY

DEMOCRATIC:_____:_____:_____:_____:_____:_____:_____:UNDEMOCRATIC

ADDITIONAL COMMENTS: (USE BACK OF SHEET IF NEEDED)

APPENDIX C

COMMENTS OF THE RESPONDENTS

APPENDIX C

COMMENTS OF THE RESPONDENTS

The following are some of the comments and suggestions made by the respondents:

1. The atmosphere is sometimes like a high school.
2. The cafeteria and bookstore could be improved.
3. Teachers at San Diego City College seem quite concerned about their students.
4. San Diego should be proud of its educational system.
5. More use of audio-visual materials is needed in courses.
6. Pace of the class is geared to slower learners.
7. Health Education classes were not adequate.
8. Instructional quality is high at Evening College.
9. Police Science instructors must conduct classes on a higher level so as to attract better students into the profession.
10. Instructors are knowledgeable, but they didn't seem to impart same to class.
11. Participation in school activities is lacking.
12. Some instructors feel that giving a good grade is a sin or crime.
13. I had to wait two or three days to see a counselor.
14. More of a variety should be offered in the evening.
15. Long-range planning seemed to be too much for some counselors.
16. College atmosphere is lacking at Mesa.

17. I recognize the difference in preparedness of regular day instructors and vocational instructors.

18. There are too many of the instructors of the extreme left.

19. Mesa College lacks togetherness.

20. The library needs books.

21. The people in some of the offices were unkind, unfriendly, and less than helpful.

22. Registration procedures leave much to be desired.

23. Formal education is not directed toward what is needed on the job.

24. More parking is needed.

25. Students could do much more about the apathetic attitude.

26. Appointments to see counselors should not be required.

27. Computer classes are needed for day students.

28. Student aids are needed to help instructors and free them for major department advice.

29. "With honors" should be placed on certificates.

30. College teaching in general ranged from very good to poor.

31. Architecture of college is more like a prison than college.

32. Some lectures should be taped and left on call in the library.

33. Some instructors seem to take so much time talking about themselves.

34. Appropriate aptitude tests should be administered and the students advised of the score relationship to success.

35. More private counseling is needed before registration.

36. Financial loan fund was very helpful.

37. Students should be granted a little more say in college.

38. Bookstore should be student operated.

39. The student council should have real power instead of false power.

40. Disgusted with the mediocre information and run around given by clerks.

41. People should be fined for littering campus.

42. Someone should tell some of the instructors not to read the text to us.

43. Curriculum evaluations by some counselors were tragic.

44. The Board of Education dominates the colleges too much.

45. Classes were never monitered by college administrators.

46. Personally, I feel that some teachers are just waiting to retire.

47. Seems to take so long to get an evaluation of my units.

48. Counselors need to know more about transfer credits.

49. Pre-course physical should be given all firemen and policemen.

50. I object to having my lunch spoiled by radicals who blast away in the cafeteria.

51. Campus police at Mesa seem less than helpful.

52. If the counselors were not there, they would be of more help than they are now.

53. Instructors range from very good to very poor.

54. The administration does not seem to care about students.

55. Need "gap" classes for those over thirty, especially after having been out of school so long.

56. Rah - Rah and social mixes for Evening College are for teenagers, so let them pay for the A S B cards.

57. More care should be taken in selecting substitute teachers.

58. Petitioned for a degree three times from San Diego City College but heard nothing.